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                 211427-64-4/BI OR 24424-99-5/BI OR 27955-94-8/BI OR
                 29654-55-5/BI OR 5001-18-3/BI OR 5292-43-3/BI OR 623-05-2/B
                 I OR 65338-98-9/BI OR 683227-72-7/BI OR 683227-73-8/BI OR
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                 75-07-0/BI OR 99181-50-7/BI)
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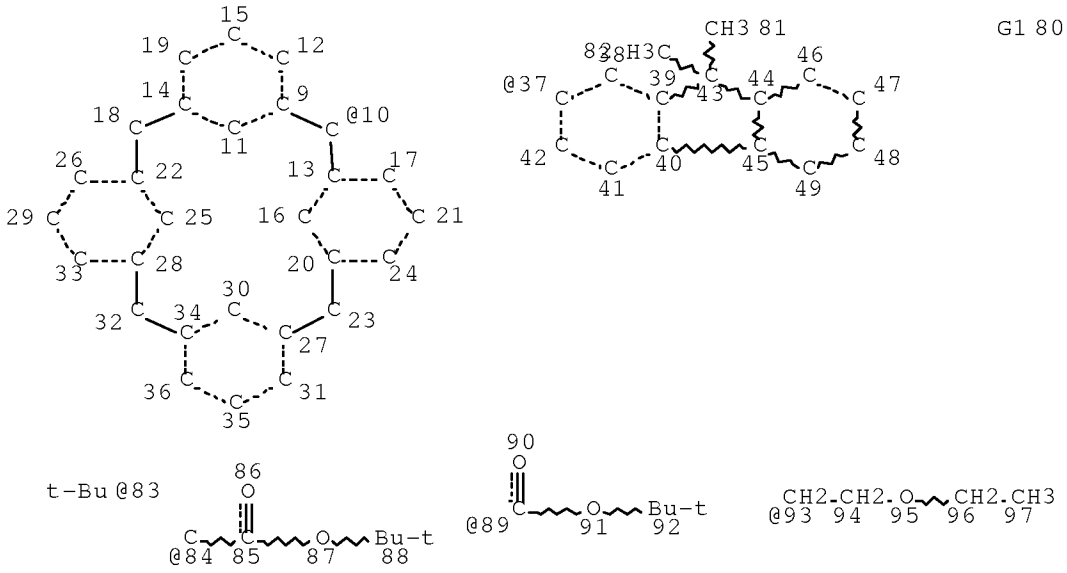

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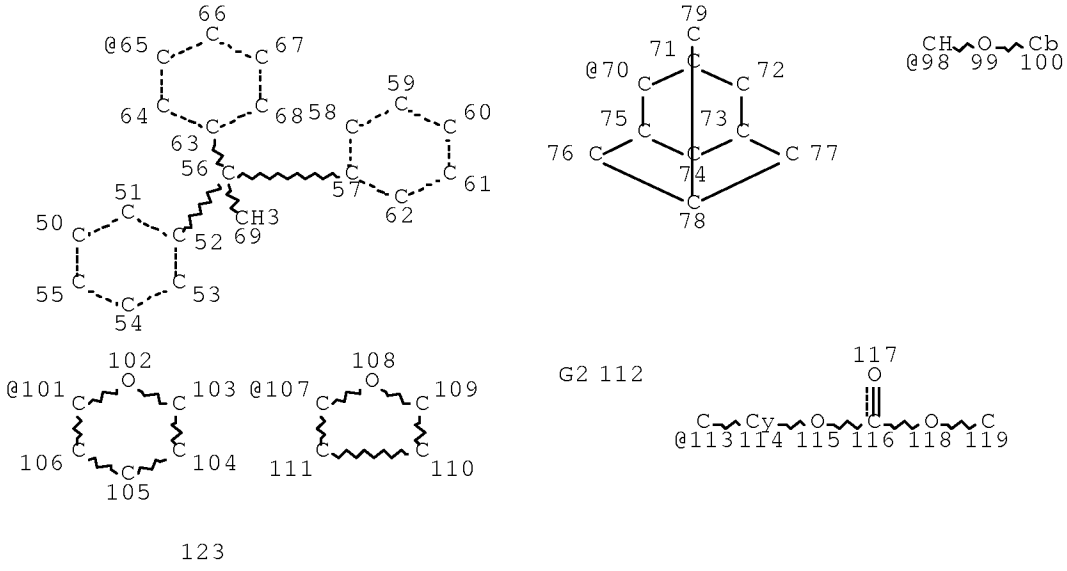

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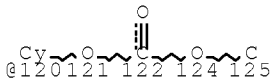

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 117

STEREO ATTRIBUTES: NONE
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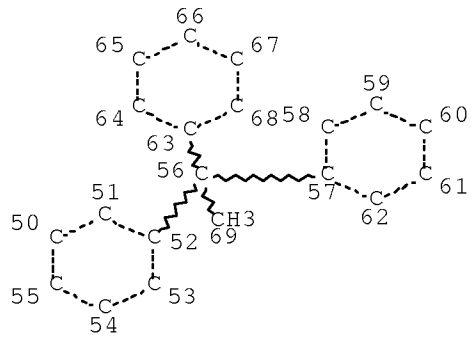
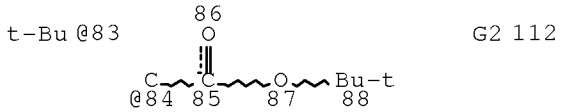
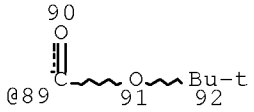
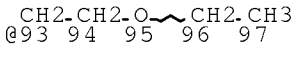
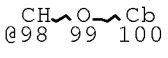
L16 STR

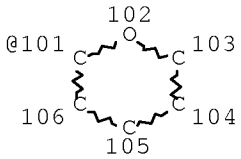












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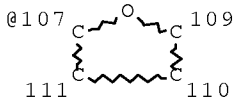

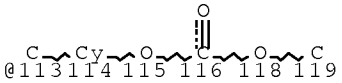

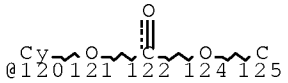

Page 2-A
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  63

STEREO ATTRIBUTES: NONE
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L24         201 SEA FILE=REGISTRY ABB=ON  PLU=ON  L23 AND 3/NR
L25          92 SEA FILE=REGISTRY ABB=ON  PLU=ON  L24 AND 3 46.150/RID
L26           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L25 AND ETHYLIDYNETRIS?
L27           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L22 OR L26
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L30         964 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 OR L29
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L45          14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 AND  (SEMICONDUCT? OR
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L48          77 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45 OR L47
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                AL?
L51          57 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L49 OR L50


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FILE 'HCAPLUS' ENTERED AT 15:06:45 ON 18 NOV 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 18 Nov 2008  VOL 149 ISS 21
FILE LAST UPDATED: 17 Nov 2008  (20081117/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.
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New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l51 1-57 ibib ed abs hitstr hitind

L51 ANSWER 1 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:355223 HCAPLUS Full-text
DOCUMENT NUMBER: 140:383102
TITLE: Photoresist base material, method for purification thereof, and photoresist compositions containing the same
INVENTOR(S): Ueda, Mitsuru; Ishii, Hirotoshi
PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004036315	A1	20040429	WO 2003-JP11137 <--	20030901
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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JP 2004191913	A	20040708	JP 2003-112458 <--	20030417
AU 2003261865	A1	20040504	AU 2003-261865 <--	20030901
EP 1553451	A1	20050713	EP 2003-808872 <--	20030901
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1688939	A	20051026	CN 2003-824240 <--	20030901
TW 282037	B	20070601	TW 2003-92124659 <--	20030905
US 20050271971	A1	20051208	US 2005-531208 <--	20050414

PRIORITY APPLN. INFO.:	JP 2002-300144 <--	A	20021015
	JP 2003-112458 <--	A	20030417
	WO 2003-JP11137	W	20030901

OTHER SOURCE(S): MARPAT 140:383102

ED Entered STN: 30 Apr 2004

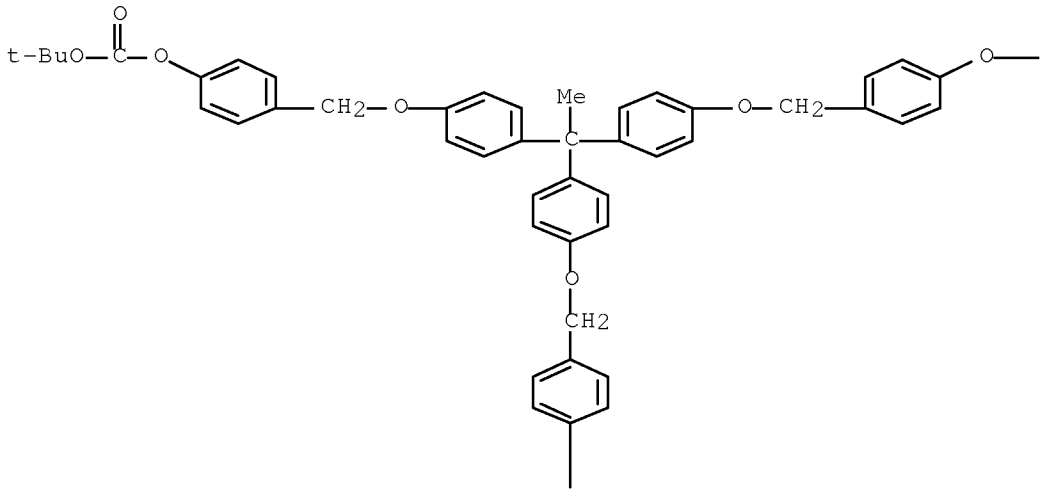
AB The invention relates to photoresist base materials consisting of extreme UV sensitive-organic compds. represented by the general formula (B-X)l(C-Y)m(D-Z)nA: [wherein A is a central structure consisting of an aliphatic group having C1-50, an aromatic group having C6-50 carbon, an organic group bearing both, or an organic group having a cyclic structure formed by repetition of these groups; B to D are each an extreme UV sensitive group, a group exhibiting a reactivity on the action of a chromophore sensitive to extreme UV rays, a C1-50 aliphatic or C6-50 aromatic group having such a group, an organic group having both groups, or a substituent having a branched structure; X to Z are each a single bond or an ether linkage; l to n are integers of 0-5 satisfying the relationship: l + m + n <u>></u> 1; and A to D may each have a heteroatom-bearing substituent]. The invention provides photoresist base materials and photoresist compns. which enable ultrafine lithog. with extreme UV rays or the like and is suitable for use in semiconductor device fabrication.

IT 683227-75-0P 683227-76-1P
(photoresist base material, method for purification thereof, and photoresist compns. containing the same)

RN 683227-75-0 HCAPLUS

CN Carbonic acid, ethylidynetris(4,1-phenyleneoxymethylene-4,1-phenylene) tris(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



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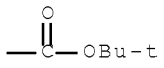

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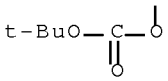
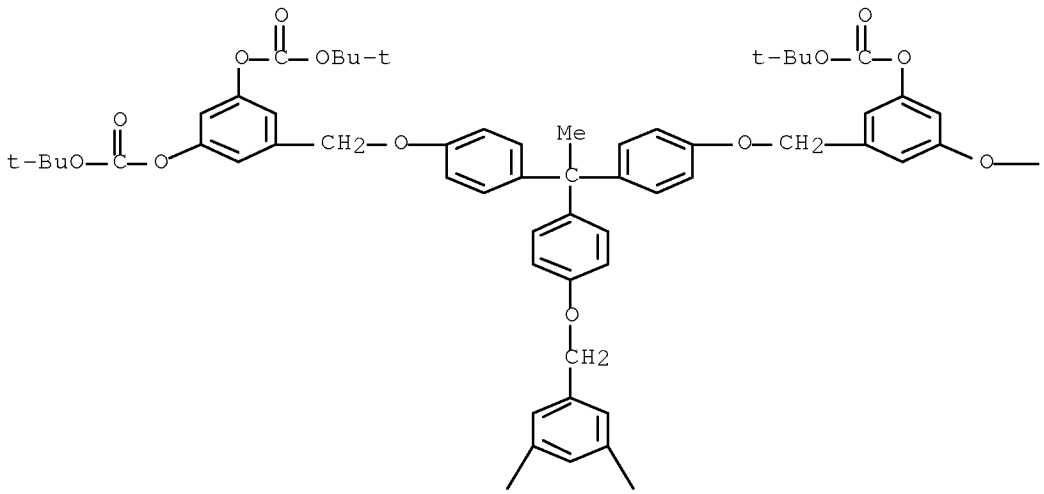


RN 683227-76-1 HCAPLUS
CN Carbonic acid, ethylidynetris(4,1-phenyleneoxymethylene-5,1,3-benzenetriyl) hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



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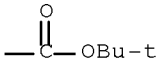


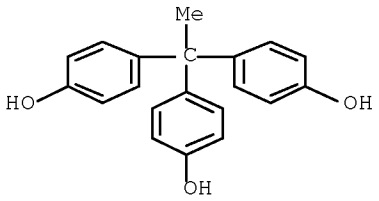
PAGE 2-A

IT 27955-94-8

(photoresist base material, method for purification thereof, and photoresist compns. containing the same)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-039
ICS C07C039-17; C07C069-736; C07D309-04

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

ST photoresist compn

IT Light-sensitive materials
Photoresists
Recrystallization
Semiconductor device fabrication
(photoresist base material, method for purification thereof, and photoresist compns. containing the same)

IT Distillation
(vacuum; photoresist base material, method for purification thereof, and photoresist compns. containing the same)

IT 65338-98-9DP, tetrahydropyranyl and benzyl derivative ethers
125748-07-4P, Calix[4]resorcinarene 211427-64-4P 683227-72-7P
683227-73-8P 683227-74-9P 683227-75-0P
683227-76-1P
(photoresist base material, method for purification thereof, and photoresist compns. containing the same)

IT 75-07-0, Acetaldehyde, reactions 108-46-3, Resorcinol, reactions
110-87-2, Dihydro-2H-pyran 623-05-2, 4-Hydroxybenzyl alcohol
1927-95-3, 4-Bromophenyl acetate 5001-18-3, 1,3-Dihydroxyadamantane
5292-43-3, tert-Butyl bromoacetate 24424-99-5, Di-tert-butyl dicarbonate 27955-94-8 29654-55-5,
3,5-Dihydroxybenzylalcohol 99181-50-7, 1,3,5-Trihydroxyadamantane
(photoresist base material, method for purification thereof, and photoresist compns. containing the same)

IT 156281-11-7P, 4-(tert-Butoxycarbonyloxy)benzylalcohol
(photoresist base material, method for purification thereof, and photoresist compns. containing the same)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 2 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:305586 HCAPLUS Full-text

DOCUMENT NUMBER: 140:347497

TITLE: Positive-working photosensitive resin precursor composition containing quinonediazide compound for improved alkali developability

INVENTOR(S): Fujita, Yoji; Miyazaki, Hatsumi; Suwa, Atsushi
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004117999	A	20040415	JP 2002-283131 <--	20020927
PRIORITY APPLN. INFO.:			JP 2002-283131 <--	20020927

OTHER SOURCE(S): MARPAT 140:347497
ED Entered STN: 15 Apr 2004
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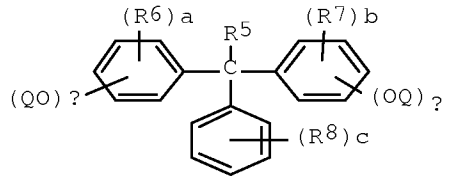

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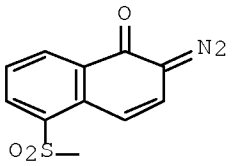

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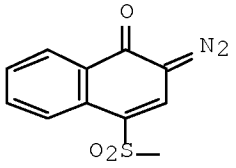
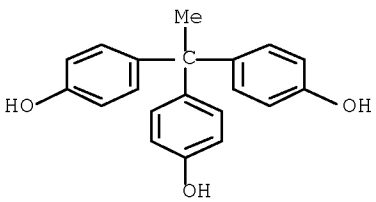


III

AB The pos.-working photosensitive resin precursor composition comprises (a) a polymer having a repeating unit [CO-R1(OH)p(COOR3)m-CONH-R2(OH)q(COOR4)f-NH]n (R1,2 = 2-8 valent organic group; R3,4 = H, C1-20 organic group; and p + q>0) and a quinonediazide compound I (R5 = H, C1-8 alkyl; R6-8 = H, C1-8 alkyl, alkoxyl, etc.; Q = II, III, H; a, b, c, d, α, β = integer 0-4; and α + β≥3).

IT 27955-94-8, TrisP-HAP
(preparation of quinonediazide compound for pos.-working photosensitive resin precursor composition)

RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-037
ICS C08G073-10; G03F007-022; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 35, 38
IT Photoimaging materials
Photoresists
(pos.-working photosensitive resin precursor composition containing quinonediazide compound for improved alkali developability)
IT 75-56-9, Propylene oxide, reactions 80-05-7, Bisphenol A, reactions 87-66-1, Pyrogallol 99-57-0, 2-Amino-4-nitrophenol 99-63-8, Isophthalic acid chloride 104-15-4, p-Toluenesulfonic acid, reactions 106-92-3, Allylglycidyl ether 108-46-3, Resorcinol, reactions 122-04-3, 4-Nitrobenzoyl chloride 488-17-5, 3-Methylcatechol 533-73-3, 1,2,4-Trihydroxybenzene 3770-97-6 3867-55-8, Trimellitic chloride 17256-00-7, α-(4-Hydroxyphenyl)styrene 27955-94-8, TrisP-HAP 36451-09-9 83558-87-6, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane 151319-83-4, BisRS-2P 223707-72-0 679428-28-5 679428-29-6 679428-30-9 679428-31-0 679428-32-1
(preparation of quinonediazide compound for pos.-working photosensitive resin precursor composition)

L51 ANSWER 3 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:19998 HCAPLUS Full-text
DOCUMENT NUMBER: 140:78229
TITLE: Positively-working photosensitive cycloolefin polymer compositions and insulator films from them
INVENTOR(S): Okuda, Ryoji; Fujiwara, Takenori; Otake, Atsushi; Tomikawa, Masao
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004002753	A	20040108	JP 2003-84685 <--	20030326
PRIORITY APPLN. INFO.:			JP 2002-92201 <--	A 20020328

ED Entered STN: 11 Jan 2004
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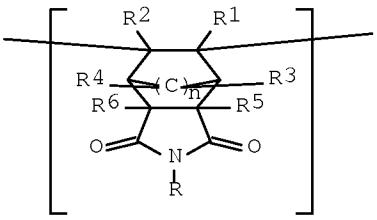


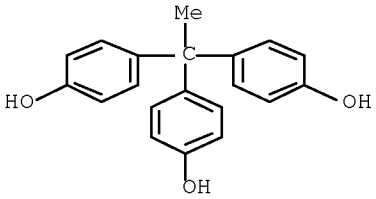
I

AB The compns., useful for elec. insulator films for semiconductor or electroluminescent devices, contain polymers having structural units I (n = 1-2; R1-R4 = H, F, CF3, C1-10 alkyl, C6-20 aryl; R5, R6 = H, C1-10 alkyl; R = substituent) and/or their precursors and ≥1 groups chosen from CO2H, phenolic OH, SO3H, and SH. Thus, a varnish containing deprotected N-[3,5-bis(trifluoromethyl)phenyl]bicyclo[2.2.1]hept-5-ene-2,3- dicarboximide-N-[3-(tert-butyldimethylsilyloxy)phenyl]bicyclo[2.2.1]hept-5-ene-2,3- dicarboximide copolymer 1.00, photoacid generator 0.25, and Bis-Z 0.10 g was applied on a Si wafer to give a film showing dielec. constant 2.5, Tg >400°, 5% weight loss temperature 450°, and high sensitivity and resolution

IT 27955-94-8, TrisP-HAP
(reactant for acid generator; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM C08F034-00
ICS C08L045-00; G03F007-004; G03F007-022; H05B033-14; H05B033-22

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 74, 76

ST polycycloolefin photosensitive compn insulator film semiconductor; nadimide polymer photosensitive compn electroluminescent device

IT Electroluminescent devices
Semiconductor devices
(films for; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)

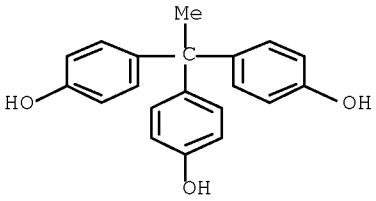
IT Dielectric films
Positive photoresists
(photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)

IT Phenols, uses
(photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 31600-99-4P 38595-90-3P 142541-99-9P 151598-18-4P
(acid generator; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 2746-19-2P
(intermediate for monomer; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 12317-46-3P 59675-94-4P
(intermediate for polymerization catalyst; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 89104-86-9P 360058-84-0P 360058-85-1P 360058-87-3P
360058-88-4P 574705-34-3P 640735-35-9P
(monomer; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 591-27-5DP, 3-Aminophenol, reaction products with nadic anhydride-norbornene-tricyclodecanedimethanol diacrylate copolymer
640735-36-0DP, desilylated 640735-37-1DP, desilylated
640735-39-3DP, desilylated 640735-40-6DP, desilylated
640735-42-8DP, reaction products with aminophenol 640735-45-1P
640735-46-2P 640735-48-4DP, desilylated
(photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 91-04-3 843-55-0, Bis-Z 93933-64-3, BIR-PC 110726-28-8, TrisP-PA
151319-83-4, BisRS 2P 178206-74-1 640735-47-3
(photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 7440-05-3DP, Palladium, complexes with bicycloheptadiene and tetrafluoroborate
(polymerization catalyst; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 80-05-7, Bisphenol A, reactions 99-89-8, 4-Isopropylphenol
3770-97-6 27955-94-8, TrisP-HAP
(reactant for acid generator; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 99-05-8, 3-Aminobenzoic acid 108-69-0, 3,5-Dimethylaniline
129-64-6 328-74-5, 3,5-Bis(trifluoromethyl)aniline 455-14-1,
4-Trifluoromethylaniline 591-27-5, 3-Aminophenol 18162-48-6,
tert-Butyldimethylsilyl chloride 360058-86-2,
3-Trifluoromethyl-4-[3,5-bis(trifluoromethyl)phenoxy]aniline
(reactant for monomer; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)
IT 121-46-0, 2,5-Norbornadiene
(reactant for polymerization catalyst; photosensitive compns. containing polycycloolefins and phenols for insulator films for semiconductor or electroluminescent devices)

L51 ANSWER 4 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:951321 HCAPLUS Full-text
DOCUMENT NUMBER: 140:21276
TITLE: Photosensitive resin composition and method for preparing heat-resistant resin film
INVENTOR(S): Miyoshi, Kazuto; Okuda, Ryoji; Tomikawa, Masao
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003100522	A1	20031204	WO 2003-JP6654 <--	20030528
W: CN, KR, US RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
JP 2004054254	A	20040219	JP 2003-150454 <--	20030528
EP 1508837	A1	20050223	EP 2003-733112 <--	20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1656427	A	20050817	CN 2003-812102 <--	20030528
TW 288296	B	20071011	TW 2003-92114325 <--	20030528
US 20050202337	A1	20050915	US 2004-514812 <--	20041118
US 7214455	B2	20070508		
PRIORITY APPLN. INFO.:			JP 2002-155460 A <--	20020529
			WO 2003-JP6654 W	20030528

ED Entered STN: 07 Dec 2003
AB The invention relates to a photosensitive resin composition which comprises (a) a resin having a specific structure, (b) a photosensitive agent and (c) an organic solvent having a b.p. under atmospheric pressure of 100°C to 140 °C, and contains the (c) component in an amount of 50 to 100 weight % relative to the total amount of the organic solvent; and a method for a heat -resistant resin film comprising using the resin composition The resin composition is advantageous in that it is less prone to causing defects such as transfer marks or furrows. The resin composition is suitable for a dielec. layer of organic EL display panels, a surface protecting layer and interlayer-insulating layer of semiconductor devices, etc.
IT 27955-94-8DP, TrisP-HAP, 5-naphthoquinonediazidesulfonyl ester
(photosensitive resin composition and method for preparing heat-resistant resin film)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-037
ICS G03F007-022; H05B033-10; H05B033-14
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 76
IT Heat-resistant materials
(films; photosensitive resin composition and method for preparing heat-resistant resin film)
IT Light-sensitive materials
Optical imaging devices
Positive photoresists
Semiconductor device fabrication
(photosensitive resin composition and method for preparing heat-resistant resin film)
IT 80-05-7DP, Bisphenol A, 5-naphthoquinonediazidesulfonyl ester 99-89-8DP, 4-Isopropylphenol, 5-naphthoquinonediazidesulfonyl ester 3770-97-6DP, o-Naphthoquinonediazide-5-sulfonyl chloride, ester with aryl phenolderiv. 27955-94-8DP, TrisP-HAP, 5-naphthoquinonediazidesulfonyl ester 110726-28-8DP, Tris-PA (phenol), 5-naphthoquinonediazidesulfonyl ester 630402-12-9P 630402-13-0P 630402-15-2P 630402-18-5DP, 3-aminophenol terminated 630402-18-5DP, 4-ethynylaniline-terminated 630402-19-6P 630402-20-9DP, 3-aminophenol terminated 630402-21-0P
(photosensitive resin composition and method for preparing heat-resistant resin film)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 5 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:239873 HCAPLUS Full-text
DOCUMENT NUMBER: 138:239207
TITLE: Alkali-soluble unsaturated polymers, their photocurable compositions, and manufacture of the polymers
INVENTOR(S): Fujii, Satoru; Yanagihara, Yoshinao; Hosomi, Tetsuya; Kitano, Kei
PATENT ASSIGNEE(S): Nagase Chemtex Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003089716	A	20030328	JP 2002-41864	20020219

PRIORITY APPLN. INFO.: JP 2001-44212 A 20010220 <-- JP 2001-212351 A 20010712 <--

ED Entered STN: 28 Mar 2003

AB The polymers contain HO2CVCO2X[O2CZ(CO2)2CO2X]a[O2CVCO2WO2CVCO2X[O2CZ(CO2H)2CO2X]b]nO2CVCO2H [X = (CH2:CR1CO2CH2)CHCH2OAOCH2CH(CH2O2CCR1:CH2); R1 = H, Me; A = P, Q, S; R2, R3 = H, C1-5 alkyl, Ph, halo; R4 = H, OH, C1-5 alkyl; B = CO, SO2, C(CF3)2, SiMe2, CH2, CMe2, O, direct bond; a, b, n = 0-20; V = Y or Z; Y = carboxylic anhydride residue; Z = carboxylic dianhydride residue; W = groups derived from polyfunctional epoxy compds.]. Thus, 9,9-di(4-glycidyloxyphenyl)fluorene diacrylate was successively reacted with benzophenonetetracarboxylic acid dianhydride, 1,2,3,6-tetrahydrophthalic anhydride, and 9,9-di(4-glycidyloxyphenyl)fluorene to give a copolymer, 100 parts of which was mixed with 20 parts 2,3,4,4'-tetrahydroxybenzophenone 1,2-naphthoquinonediazido-5-sulfonate, applied on a silicon substrate, irradiated with radiation via a mask having a predetd. pattern, developed with tetramethylammonium hydroxyde solution, washed with water, and dried to give a pattern showing good heat and chemical resistance and transparency.

IT 501417-88-5P
(manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)

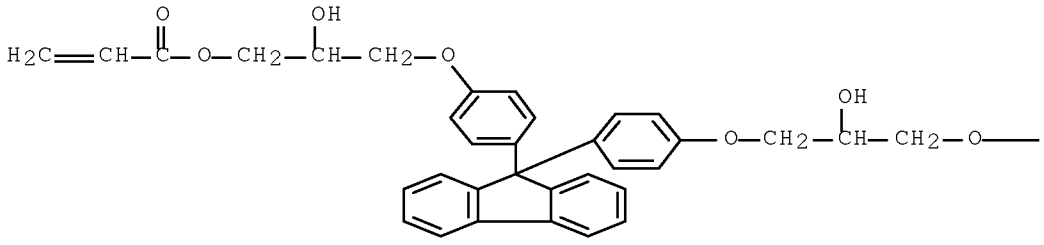
RN 501417-88-5 HCAPLUS

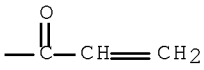
CN 2-Propenoic acid, 9H-fluoren-9-ylidenebis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester, polymer with 5,5'-carbonylbis[1,3-isobenzofurandione], 2,2'-[9H-fluoren-9-ylidenebis(4,1-phenyleneoxymethylene)]bis[oxirane], 2,2'-[[1-[4-[1-methyl-1-[4-(oxiranylmethoxy)phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxymethylene)]bis[oxirane] and 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 143182-97-2
CMF C37 H34 O8

PAGE 1-A





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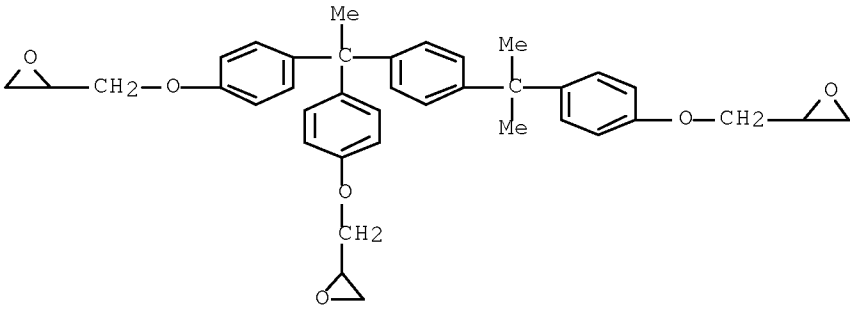
CMF C38 H40 O6



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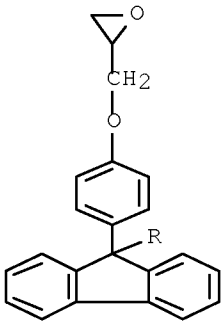
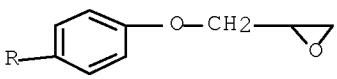
CRN 47758-37-2
CMF C31 H26 O4





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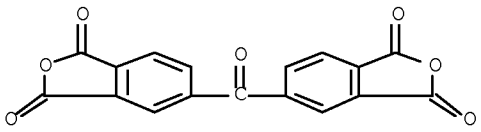
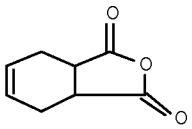
CRN 2421-28-5
CMF C17 H6 O7



CM 5

CRN 85-43-8
CMF C8 H8 O3



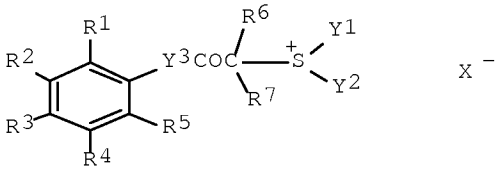
IC ICM C08G059-17
ICS C08F290-14; G03F007-004; G03F007-023; G03F007-027
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74, 76
ST solder photoresist phenylfluorene epoxy resin polyester; benzophenonetetracarboxylic anhydride epoxy resin polyester photoresist; tetrahydrophthalic anhydride epoxy resin polyester photoresist; semiconductor device photoresist epoxy resin polyester; heat resistance photoresist epoxy resin polyester; chem resistance photoresist epoxy resin polyester; alkali soluble phenylfluorene epoxy resin polyester
IT Polyesters, uses
(aminoplast-epoxy; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Epoxy resins, uses
(aminoplast-polyester-; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Heat-resistant materials
(chemical resistant; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Aminoplasts
(epoxy-polyester; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)

IT Polyesters, uses
(epoxy; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Chemically resistant materials
(heat-resistant; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Semiconductor devices
(manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for)
IT Solder resists
(photoresists; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Epoxy resins, uses
(polyester-; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT Photoresists
(solder; manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT 166596-78-7P, Benzophenonetetracarboxylic acid dianhydride-9,9-di(4-glycidyloxyphenyl)fluorene diacrylate-1,2,3,6-tetrahydrophthalic anhydride copolymer 501417-85-2P, Benzophenonetetracarboxylic acid dianhydride-9,9-di(4-glycidyloxyphenyl)fluorene-9,9-di(4-glycidyloxyphenyl)fluorene diacrylate-1,2,3,6-tetrahydrophthalic anhydride copolymer
(manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)
IT 501417-86-3P, Benzophenonetetracarboxylic acid dianhydride-9,9-di(4-glycidyloxyphenyl)fluorene-9,9-di(4-glycidyloxyphenyl)fluorene diacrylate copolymer 501417-87-4P 501417-88-5P 501426-28-4P, Benzophenonetetracarboxylic acid dianhydride-9,9-di(4-glycidyloxyphenyl)fluorene-Epikote YX 4000 acrylate-1,2,3,6-tetrahydrophthalic anhydride copolymer 501426-29-5P, Benzophenonetetracarboxylic acid dianhydride-9,9-di(4-glycidyloxyphenyl)fluorene-Epiclon HP 4032D acrylate-1,2,3,6-tetrahydrophthalic anhydride copolymer
(manufacture of alkali-soluble unsatd. polymers for photoresists with good heat and chemical resistance for semiconductor devices)

L51 ANSWER 6 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:97194 HCAPLUS Full-text
DOCUMENT NUMBER: 138:145067
TITLE: Positive radiation-sensitive compositions having high sensitivity and high resolution
INVENTOR(S): Kodama, Kunihiko
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003035948	A	20030207	JP 2002-141737 <--	20020516
JP 4149194	B2	20080910		
TW 565748	B	20031211	TW 2002-91109883 <--	20020513
US 20030075708	A1	20030424	US 2002-144536 <--	20020514
US 6733951	B2	20040511		
PRIORITY APPLN. INFO.:			JP 2001-148006 <--	A 20010517

OTHER SOURCE(S): MARPAT 138:145067
ED Entered STN: 07 Feb 2003
GI



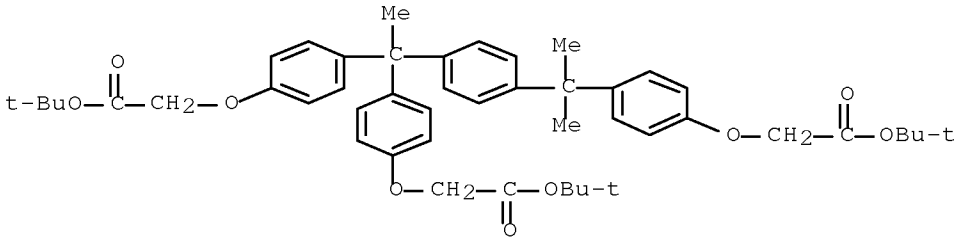
I

AB The compns. contain (A) ≥1 compds. generating acids by actinic ray (DUV, electron beam, x-ray, ionic ray) irradiation and represented by general formula I (R1-R5 = H, alkyl, alkoxy, NO2, halo, alkoxycarbonyl, aryl; ≥2 of R1-R5 may be bonded to each other and form ring structure; R6, R7 = H, alkyl, CN, aryl; Y1, Y2 = alkyl, aryl, aralkyl, hetero atom.-containing aromatic group; Y1 and Y2 may be bonded to each other and form ring; Y3 = single bond or divalent linking group; X- = non-nucleophilic anion; ≥1 of R1-R5 and Y1 and/or Y2 are bonded to each other and form ring or ≥1 of R1-R5 and R6 and/or R7 are bonded to each other and form ring; the compound may bear ≥2 of the structure I by bonding via a linking group at desired positions selectted from R1-R7 or Y1 or Y2) and (B) resins bearing groups which can be decomposed by acids and increase solubility in alkali developers. In another alternative, the compns. contain A, (C) low mol.-weight dissoln. inhibitors with mol. weight ≤3000 and bearing groups which can be decomposed by acids and increase solubility in alkali developers, and (D) resins which are insol. in water and soluble in alkali developers. The compns. are useful for fabrication of lithog. plates, IC, circuit boards for liquid crystals and thermal heads, etc.

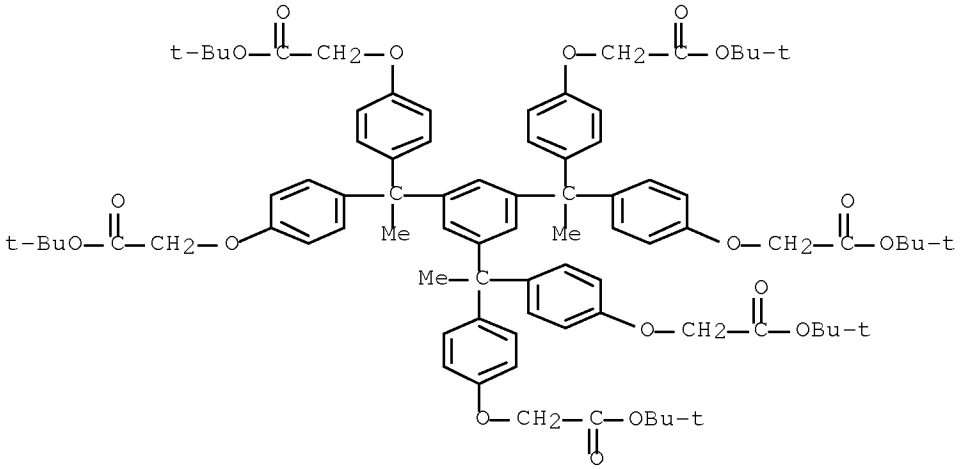
IT 153698-54-5 153698-65-8
(dissoln. inhibitor; chemical-amplified pos. radiation-sensitive compns. having high sensitivity and high resolution)

RN 153698-54-5 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-[4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-1-methylethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, 1,1'-bis(1,1-dimethylethyl) ester (CA INDEX NAME)



RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-004
ICS G03F007-039
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT Positive photoresists
(UV; chemical-amplified pos. radiation-sensitive compns. having high sensitivity and high resolution)
IT Positive photoresists
(chemical-amplified pos. radiation-sensitive compns. having high sensitivity and high resolution)
IT 153698-54-5 153698-63-6 153698-65-8 359434-70-1 359434-73-4
(dissoln. inhibitor; chemical-amplified pos. radiation-sensitive compns. having high sensitivity and high resolution)

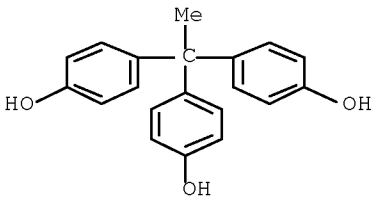
L51 ANSWER 7 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:58829 HCAPLUS Full-text
DOCUMENT NUMBER: 138:107615
TITLE: Reflection-inhibiting resin composition used in process for forming photoresist pattern

INVENTOR(S): Hong, Sung Eun; Jung, Min Ho; Kim, Hyeong Soo; Jung, Jae Chang; Baik, Ki Ho
PATENT ASSIGNEE(S): Hynix Semiconductor Inc., S. Korea
SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 627,713.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030018150	A1	20030123	US 2002-189056 <--	20020703
US 6797451	B2	20040928		
KR 2001011770	A	20010215	KR 1999-31300 <--	19990730

PRIORITY APPLN. INFO.:
KR 1999-31300 A 19990730 <--
US 2000-627713 A2 20000728 <--

ED Entered STN: 24 Jan 2003
AB A composition for reducing the light reflection in a photoresist pattern formation comprises (a) [CH2CR1(CO2G)]x(CH2CR2R3)y (G = glycidyl; R1, R2 = H, OH, CH2OH, alkyl; R3 = substituted aryl groups; x and y represent the relative amts. of each monomer, wherein the mole ratio of x:y is 0.0 - 0.9:0.1 - 1.0), (b) a thermal acid generator, (c) an organic solvent, and optionally (d) a polymer having hydroxyl group as a functional group. The present invention also provides methods for using the above described resin to inhibit reflection of light from the lower layer of a wafer substrate during a photoresist pattern formation process. A composition contained glycidyl methacrylate-α-methylstyrene copolymer, polyvinylphenol, and a photoacid generator in propylene glycol Me ether acetate solvent.
IT 27955-94-6, 1,1,1-Tris(4-hydroxy phenyl)ethane
(reflection-inhibiting resin composition used in process for forming photoresist pattern)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM C08F004-04
INCL 526219000; 526273000; 526346000; 524228000; 524268000; 524310000; 524315000; 525182000; 525186000
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74
ST photoresist reflection inhibiting resin
IT Photoresists

(reflection-inhibiting resin composition used in process for forming photoresist pattern)
IT 106-91-2P, Glycidyl methacrylate 113538-80-0P 331622-73-2P
(monomer; reflection-inhibiting resin composition used in process for forming photoresist pattern)
IT 99835-44-6 335157-24-9 348594-74-1 348594-76-3
(photoacid generator; reflection-inhibiting resin composition used in process for forming photoresist pattern)
IT 86249-18-5P, Glycidyl methacrylate-α-methylstyrene copolymer
189117-83-7P 260369-03-7P 331622-76-5P 331622-77-6P
375395-27-0P 488722-36-7P
(reflection-inhibiting resin composition used in process for forming photoresist pattern)
IT 59269-51-1, Polyvinyl phenol
(reflection-inhibiting resin composition used in process for forming photoresist pattern)
IT 79-41-4, Methacrylic acid, reactions 106-89-8, Epichlorohydrin, reactions 556-52-5, Glycidol 814-68-6, Acryloyl chloride
1592-20-7, 4-Vinylbenzyl chloride 27955-94-8,
1,1,1-Tris(4-hydroxy phenyl)ethane
(reflection-inhibiting resin composition used in process for forming photoresist pattern)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 8 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:676319 HCAPLUS Full-text
DOCUMENT NUMBER: 137:224114
TITLE: Precursor composition for positive photosensitive resin suitable for fabricating display
INVENTOR(S): Suwa, Mitsuhito; Miyoshi, Kazuto; Tomikawa, Masao
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002069041	A1	20020906	WO 2002-JP1517 <--	20020221
W: CN, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
TW 574620	B	20040201	TW 2002-91102692 <--	20020218
JP 2002328472	A	20021115	JP 2002-41308 <--	20020219
JP 4082041	B2	20080430		
EP 1365289	A1	20031126	EP 2002-700653 <--	20020221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
CN 101017327	A	20070815	CN 2007-10084697 <--	20020221
CN 101017328	A	20070815	CN 2007-10084698 <--	20020221

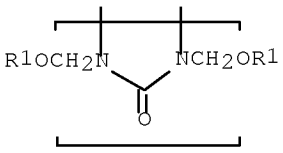
CN 100362429	C	20080116	CN 2002-800432 <--	20020221
KR 840472	B1	20080620	KR 2002-714320 <--	20021025
US 20030194631	A1	20031016	US 2003-258660 <--	20030303
US 6933087	B2	20050823		

PRIORITY APPLN. INFO.:

JP 2001-49951 <--	A	20010226
CN 2002-800432 <--	A3	20020221
WO 2002-JP1517 <--	W	20020221

ED Entered STN: 08 Sep 2002

GI



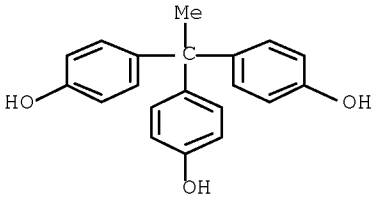
I

AB The invention relates to a precursor composition for an alkali-developable pos. photosensitive resin. The precursor composition comprises (a) a polyamic acid ester and/or polyamic acid polymer which are soluble in an aqueous alkali solution, (b1) a heat-crosslinkable compound which contains a phenolic hydroxyl group and a methylol group substituted by an organic group R1 (provided that R1 is not hydrogen) or (b2) a heat-crosslinkable compound which contains a urea-derived organic group substituted by organic groups R1, and (c) An esterified quinone diazide compound The heat-crosslinkable compound in (b1) is represented by -(-CH2-OR1) [R1 = C1-20-alkyl, R2CO; R2 = C1-20-alkyl] and the heat-crosslinkable compound in (b2) is represented by I [R1 = C1-20-alkyl, R2CO; R2 = C1-20-alkyl]. The precursor composition, showing excellent heat-resistance, is suitable as a surface protection layer and an insulator layer in a semiconductor device and in an organic electroluminescent display.

IT 27955-94-8, TrisP HAP
(preparation of heat-resistant pos. photosensitive resin precursor composition)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-037
ICS G03F007-022; G03F007-004; H05K003-06; H05B033-14
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73, 76
ST pos working photosensitive polyimide precursor compn display fabrication; heat resistant coating material photoresist compn display fabrication
IT Crosslinking agents
Electrochromic imaging devices
Field emission displays
Liquid crystal displays
Photolithography
Positive photoresists
Semiconductor device fabrication
(heat-resistant pos. photosensitive resin precursor composition suitable for fabricating display)
IT Coating materials
(heat-resistant; heat-resistant pos. photosensitive resin precursor composition suitable for fabricating display)
IT 64-17-5, Ethyl alcohol, reactions 80-05-7, Bisphenol A, reactions 99-57-0, 2-Amino-4-nitrophenol 99-63-8, Isophthalic acid chloride 122-04-3, 4-Nitrobenzoylchloride 1107-00-2, 2,2-Bis(3,4-dicarboxyphenyl)hexafluoropropanedianhydride 1204-28-0, Trimellitic anhydride chloride 2421-28-5, 3,3',4,4'-Benzophenonetetracarboxylic acid dianhydride 3770-97-6, 1,2-Naphthoquinonediazide-5-sulfonyl chloride 7719-09-7, Thionyl chloride 27955-94-8, TrisP HAP 36451-09-9, 1,2-Naphthoquinonediazide-4-sulfonyl chloride 83558-87-6, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane
(preparation of heat-resistant pos. photosensitive resin precursor composition)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 9 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:592334 HCAPLUS Full-text
DOCUMENT NUMBER: 137:161388
TITLE: Positively working photosensitive polyimide composition with high i-line sensitivity and its film
INVENTOR(S): Okazaki, Maki; Shibazaki, Yuji; Ueda, Mitsuru
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002221793	A	20020809	JP 2001-20016 <--	20010129
PRIORITY APPLN. INFO.:			JP 2001-20016 <--	20010129

ED Entered STN: 09 Aug 2002

AB The composition contains hyperbranched polyimides having alkali-soluble groups and dissoln. inhibitors. The polyimide film is obtained by irradiation and development of the above composition The composition shows high i-line sensitivity and gives high-contrast patterns to be useful for manufacture of interlayer insulating films of high-d. multilayer circuit boards.

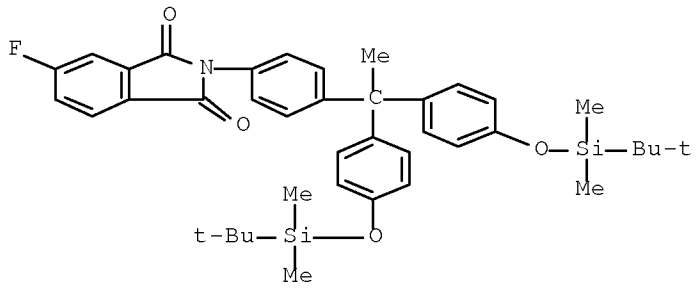
IT 266695-65-2DP, hydrolyzed
(pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)

RN 266695-65-2 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[1,1-bis[4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]ethyl]phenyl]-5-fluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

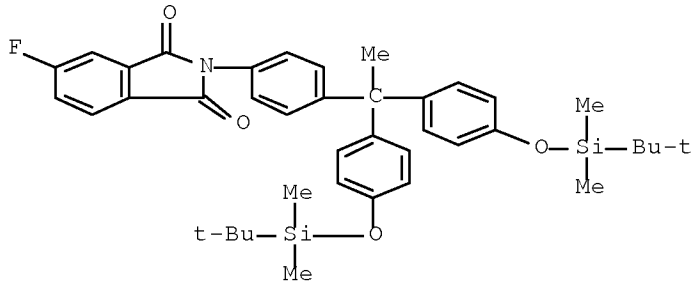
CRN 266695-64-1
CMF C40 H48 F N O4 Si2



IT 266695-64-1P
(preparation and polymerization of; pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)

RN 266695-64-1 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[1,1-bis[4-[[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]ethyl]phenyl]-5-fluoro- (CA INDEX NAME)



IC ICM G03F007-037
ICS C08G073-10; C08J005-18; C08K005-28; C08L079-08; G03F007-022; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76
ST pos photoresist hyperbranched polyimide alkali sol; dissoln inhibitor quinonediazide polyimide photosensitive compn; i line sensitivity polyimide film
IT Positive photoresists
(pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)
IT 243459-29-2DP, hydrolyzed 266695-65-2DP, hydrolyzed
(pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)
IT 243459-23-6P, 3,5-Di-tert-butyldimethylsilyloxyphenyl-4-fluorophthalimide 266695-64-1P
(preparation and polymerization of; pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)

L51 ANSWER 10 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:447174 HCAPLUS Full-text
DOCUMENT NUMBER: 137:39321
TITLE: Positively working resist composition containing fluoropolymer for high resolution
INVENTOR(S): Adegawa, Yutaka; Tan, Shiro; Sorori, Tadahiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 124 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002169295	A	20020614	JP 2001-272097 <--	20010907
TW 226509	B	20050111	TW 2001-90122094 <--	20010906
KR 784330	B1	20071213	KR 2001-56258 <--	20010912
PRIORITY APPLN. INFO.:			JP 2000-276896 A <--	20000912
			JP 2000-283963 A <--	20000919

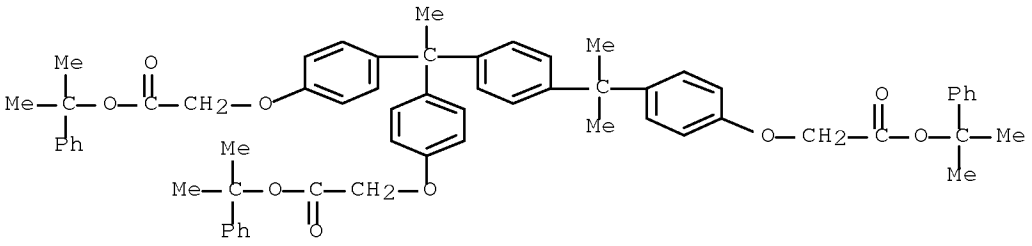
OTHER SOURCE(S): MARPAT 137:39321
ED Entered STN: 14 Jun 2002
AB The resist composition contains (A) (a1) polymers with acid-sensitive alkali solubility, (a2) alkali-soluble polymers and low-mol-weight compds. with acid-sensitive alkali solubility (dissoln. inhibitors), or (a3) polymers with acid-sensitive alkali solubility and dissoln. inhibitors, (B) acid generator sensitive to actinic ray or radiation, and (C) polymers having fluoroaliph. groups in side chains, where the groups are obtained from fluoroaliph. compds. manufactured by telomerization or oligomerization. Also claimed is a chemical amplified pos. resist composition sensitive to electron beam or x-ray containing (A) acid generator and (B) alkali-soluble polymers with weight-average mol. weight >3000 and ≤300,000 which satisfy the following conditions: (1) the polymers contain ≥1 of repeating unit from monomers containing C6-20 aromatic ring and ethylenically unsatd. group and (2) the aromatic ring has controlled number of π electrons and the substituents of the aromatic ring have controlled number of unshared electron pairs. The chemical amplified

resist composition has high resolution, high line-width reproducibility, and good pattern profiles.

IT 153698-69-2P 196709-88-3P
(dissoln. inhibitor; pos. working resist composition containing fluoropolymer for high resolution)

RN 153698-69-2 HCAPLUS

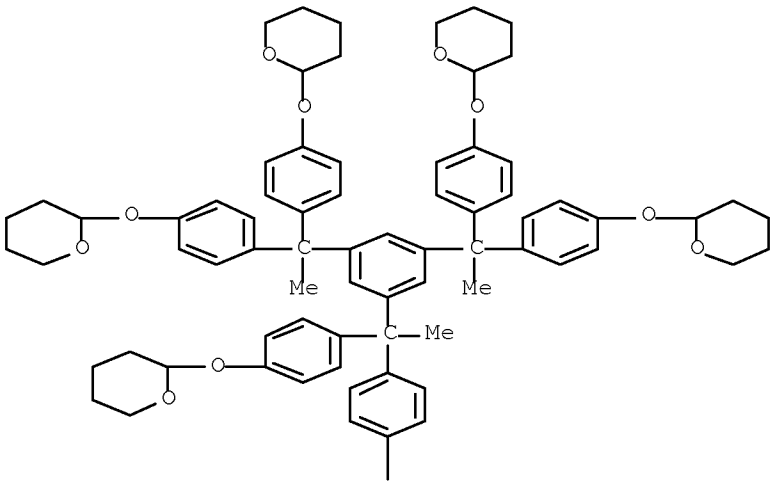
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)

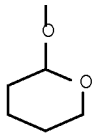


RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

PAGE 1-A





IC ICM G03F007-039
ICS C08F212-02; G03F007-004; G03F007-033; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT Photoresists
(pos. working resist composition containing fluoropolymer for high resolution)
IT 153698-63-6P 153698-69-2P 196709-88-3P
(dissoln. inhibitor; pos. working resist composition containing fluoropolymer for high resolution)

L51 ANSWER 11 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:314503 HCAPLUS Full-text
DOCUMENT NUMBER: 136:348304
TITLE: Positive photosensitive composition
INVENTOR(S): Kodama, Kunihiko; Aoai, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 148 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1199603	A1	20020424	EP 2001-124329 <--	20011019
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002131897	A	20020509	JP 2000-321128 <--	20001020
JP 2002214774	A	20020731	JP 2001-132546 <--	20010427
JP 4150509	B2	20080917		
US 20020102491	A1	20020801	US 2001-978103 <--	20011017
US 6749987	B2	20040615		
TW 536663	B	20030611	TW 2001-90125903 <--	20011019
KR 795872	B1	20080121	KR 2001-64821 <--	20011019
US 20050130060	A1	20050616	US 2004-866054 <--	20040614
US 7435526	B2	20081014		
US 20070003871	A1	20070104	US 2006-512173 <--	20060830
PRIORITY APPLN. INFO.:			JP 2000-321128 A <--	20001020
			JP 2000-352899 A	20001120

<--
JP 2001-132546 A 20010427
<--
US 2001-978103 A3 20011017
<--
US 2004-860054 A3 20040604

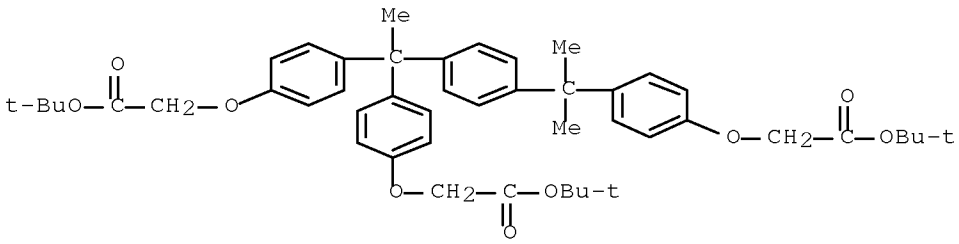
ED Entered STN: 26 Apr 2002

AB A pos. photosensitive composition comprises a compound capable of generating a specified sulfonic acid upon irradiation with one of an actinic ray and radiation and a resin capable of decomposing under the action of an acid to increase the solubility in an alkali developer.

IT 153698-54-5 153698-65-8
(photo-acid generator used in pos. photoresist composition)

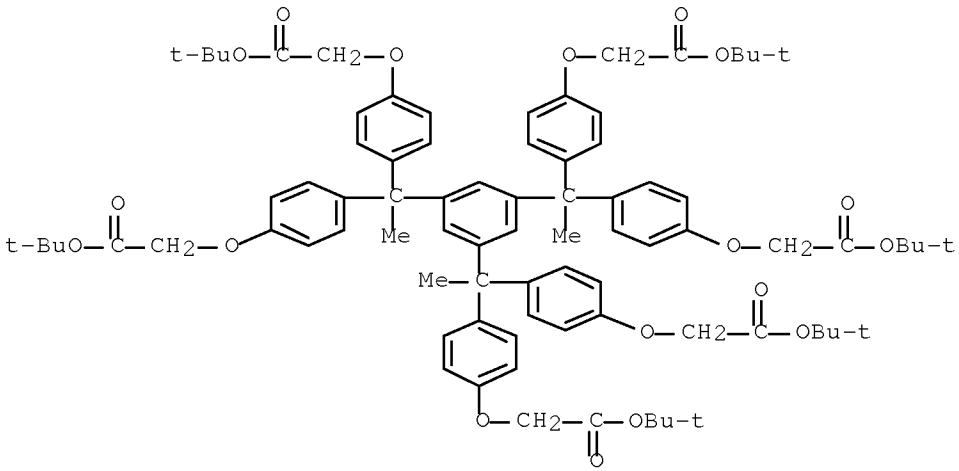
RN 153698-54-5 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-[4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-1-methylethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, 1,1'-bis(1,1-dimethylethyl) ester (CA INDEX NAME)



RN 153698-65-8 HCAPLUS

CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-004

ICS G03F007-039; C07C309-06; C07C381-12
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST pos photoresist photo acid generator photodecomposable resin; sulfonium salt iodonium salt
IT Onium compounds
(iodonium; photo-acid generator used in pos. photoresist composition)
IT Sulfonium compounds
(photo-acid generator used in pos. photoresist composition)
IT Positive photoresists
(pos. photoresist composition containing novel photo-acid generators and photo-decomposable resins)
IT 398141-17-8P 414911-27-6P
(photo-acid generator used in pos. photoresist composition)
IT 19600-49-8 24979-69-9, Poly(m-Hydroxystyrene) 24979-74-6, p-Hydroxystyrene-styrene copolymer 66003-78-9 133710-62-0
138529-81-4 144317-44-2 153698-54-5 153698-63-6
153698-65-8 177034-80-9 195000-67-0 195154-83-7
197447-16-8 216308-45-1 241806-75-7 250378-10-0 258341-98-9
258872-05-8 258879-87-7 260448-02-0 288303-55-9 297156-40-2
301153-77-5 301664-71-1 304441-22-3 324770-96-9 357413-69-5
357413-71-9 359434-70-1 359434-73-4 376357-89-0 389859-76-1
398141-18-9 398141-19-0 414911-28-7 414911-29-8 414911-31-2
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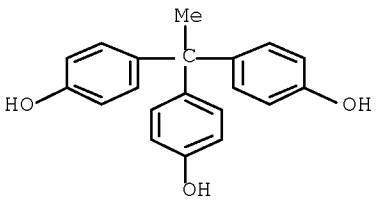
414911-37-8 414911-39-0 414911-40-3 414911-42-5 414911-43-6
414911-45-8 414911-47-0 414911-48-1 414911-50-5 414911-51-6
414911-52-7 414911-54-9 414911-56-1 414911-58-3 414911-60-7
414911-63-0 414911-65-2 414911-67-4 414911-69-6 414911-71-0
414911-73-2 414911-75-4 414911-76-5 414911-77-6 414911-79-8
414911-81-2 414911-82-3 414911-83-4 414911-85-6 414911-86-7
414911-87-8 414911-88-9 415916-79-9 415916-81-3 415916-83-5
415916-84-6 415920-53-5 415920-54-6
(photo-acid generator used in pos. photoresist composition)
IT 200808-68-0P, Styrene-p-hydroxystyrene-tert-butyl acrylate copolymer
(photo-decomposable resin in pos. photoresist composition)
IT 177080-68-1
(photo-decomposable resin in pos. photoresist composition)
IT 24979-70-2DP, Poly(p-hydroxystyrene), ester or ether derivs. 159296-87-4DP, p-Vinylphenol-tert-butyl acrylate copolymer, reaction products with iso-Bu vinyl ether 159296-87-4P
(photo-decomposable resin used in pos. photoresist composition)
IT 108-24-7, Acetic anhydride 109-53-5, Isobutyl vinyl ether 4442-79-9, Cyclohexane ethanol 24424-99-5, Di-tert-butyl dicarbonate
(reagent used in preparing photo-decomposable resin used in pos. photoresist composition)
IT 24979-70-2, VP 8000
(starting material for preparing photo-decomposable resin used in pos. photoresist composition)
IT 3744-08-9 111329-06-7 113507-82-7
(starting material for synthesizing photo-acid generator used in pos. photoresist composition)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 12 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:313331 HCAPLUS Full-text

DOCUMENT NUMBER: 136:348301
TITLE: Alkali-developable positive-working photosensitive resin precursor compositions
INVENTOR(S): Suwa, Atsushi; Fujita, Yoji; Tomikawa, Masao
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002122991	A	20020426	JP 2000-319070 <--	20001019
JP 3636059	B2	20050406		
PRIORITY APPLN. INFO.:			JP 2000-319070 <--	20001019

ED Entered STN: 26 Apr 2002
AB The compns., useful for surface protective film semiconductor devices, interlayer insulating films, etc., contain (a) polymers which mainly comprise [COR1(OH)p(CO2R3)mCONHR2(OH)qNH]n (R1 = C≥2 2-8-valent organic group; R2 = C≥2 2-6-valent organic group; R3 = H, C1-20 organic group; n = 1-10,000; m = 0-2; p, q = 0-4; p + q > 0) and show mol. weight distribution (Mw/Mn) 2.2-10, (b) phenols, and (c) esterified quinonediazide compds. The compns. show high resolution, sensitivity, and residual film rate.
IT 27955-94-8, TrisP-HAP
(alkali-developable pos.-working photoresist compns. containing polyimide precursors, phenols, and quinonediazide esters)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-037
ICS C08G073-10; C08K005-13; C08K005-28; C08L079-08; G03F007-004; G03F007-022; H01L021-312
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST alkali developable pos photoresist polyamic acid phenol
IT Positive photoresists
(UV; alkali-developable pos.-working photoresist compns. containing polyimide precursors, phenols, and quinonediazide esters)
IT Phenols, uses
(alkali-developable pos.-working photoresist compns. containing polyimide precursors, phenols, and quinonediazide esters)
IT Polyamic acids
(alkali-developable pos.-working photoresist compns.

containing polyimide precursors, phenols, and quinonediazide esters)
IT 53155-39-8P
(alkali-developable pos.-working photoresist compns.
containing polyimide precursors, phenols, and quinonediazide esters)
IT 843-55-0 93933-64-3
(alkali-developable pos.-working photoresist compns.
containing polyimide precursors, phenols, and quinonediazide esters)
IT 99-57-0, 2-Amino-4-nitrophenol 99-63-8, Isophthaloyl chloride
122-04-3, 4-Nitrobenzoyl chloride 1204-28-0, Trimellitic anhydride
chloride 6264-66-0, 3,4,4'-Triaminodiphenyl ether 27955-94-8
, TrisP-HAP 83558-87-6, 2,2-Bis(3-amino-4-
hydroxyphenyl)hexafluoropropane 110726-28-8, TrisP-PA
(alkali-developable pos.-working photoresist compns.
containing polyimide precursors, phenols, and quinonediazide esters)
IT 25596-69-4P 27431-43-2P 129197-38-2P 144773-50-2P 223255-30-9P
417702-06-8P 417702-07-9P
(alkali-developable pos.-working photoresist compns.
containing polyimide precursors, phenols, and quinonediazide esters)
IT 417702-08-0P 417702-09-1P 417702-10-4P 417702-11-5P
417702-12-6P 417702-13-7P
(alkali-developable pos.-working photoresist compns.
containing polyimide precursors, phenols, and quinonediazide esters)

L51 ANSWER 13 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:10872 HCAPLUS Full-text
DOCUMENT NUMBER: 136:93561
TITLE: Optical imaging device with flat display panels equipped with electrodes partially coated with dielectric material of positive-working light-sensitive polyimide
INVENTOR(S): Okuda, Ryoji; Fujimori, Shigeo; Oka, Tetsuo; Tomikawa, Masao
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002001922	A1	20020103	WO 2001-JP5466 <--	20010626
W: KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2002091343	A	20020327	JP 2001-189396 <--	20010622
JP 2002116715	A	20020419	JP 2001-189397 <--	20010622
TW 525407	B	20030321	TW 2001-90115392 <--	20010626
EP 1296540	A1	20030326	EP 2001-941258 <--	20010626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
KR 743338	B1	20070726	KR 2002-702546 <--	20020227
US 20020162998	A1	20021107	US 2002-69769	20020228

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US 6696112 B2 20040224

PRIORITY APPLN. INFO.: JP 2000-194019 A 20000628

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WO 2001-JP5466 W 20010626

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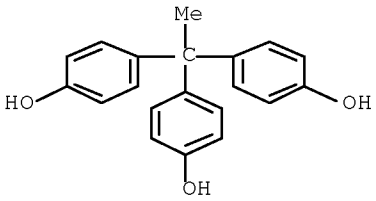
ED Entered STN: 04 Jan 2002

AB A display comprises a first electrode having an insulating layer in a manner such that a part of the first electrode is exposed, and a second electrode disposed so as to be opposed to the first electrode having the insulating layer, wherein the the insulating layer comprises a pos. photosensitive polyimide with structural unit [-CO-R1(OH)p(COOR3)n-CO-NH-R2(OH)q(COOR4)o-NH-]m (R1-2 = C≥2 2-8 valent orgs.; R3-4 = H, alkali metal ion, ammonium ion, C1-20 orgs.; m = 3-100,000; n, o = 0-2 integer; p, q = 0-4 integer, p+q>0) and an agent generating an acid by a light. The optical imaging device has easily patterned polyimide insulating layer on the electrodes.

IT 27955-94-8, TrisP-HAP
(photoresist composition for dielec. coating on electrodes of optical imaging devices)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM H05B033-22
ICS H05B033-26; H05B033-14; G03F007-039; G09F009-30; G02F001-1333

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Electrodes
Optical imaging devices
Photoresists
(optical imaging device with flat panels having electrodes partially coated with dielec. material using pos.-working light-sensitive polyimide)

IT Polyimides, preparation
(polyimide in photoresist composition for dielec. coating on electrodes of optical imaging devices)

IT 35512-24-4, BIR-PTBP
(BIR-PTBP; photoresist composition for dielec. coating on electrodes of optical imaging devices)

IT 151319-83-4, 1,3-Benzenediol, 4,6-bis[(4-hydroxyphenyl)methyl]-
(BisRS 2P; polyimide in photoresist composition for dielec. coating on electrodes of optical imaging devices)

IT 3770-97-6, 1-Naphthalenesulfonyl chloride, 6-diazo-5,6-dihydro-5-oxo-
27955-94-8, TrisP-HAP 119666-27-2
(photoresist composition for dielec. coating on electrodes of optical imaging devices)

IT 138636-85-8P 383189-33-1P 385801-48-9P
(photoresist composition for dielec. coating on electrodes of

optical imaging devices)
IT 71-36-3, Butylalcohol, reactions 121-90-4, 3-Nitrobenzoyl chloride 1204-28-0, Trimellitic acid anhydride chloride 1823-59-2, 3,3',4,4'-Diphenyl ether tetracarboxylic anhydride 7719-09-7, Thionyl chloride 83558-87-6, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane 288396-16-7, Benzoic acid, 3,3'-oxybis[6-(chlorocarbonyl)-, dibutyl ester 385793-83-9
(polyimide in photoresist composition for dielec. coating on electrodes of optical imaging devices)
IT 213608-87-8P, 3,3',4,4'-Diphenyl ether tetracarboxylic acid dibutyl ester 220426-92-6P 223255-30-9P
(polyimide in photoresist composition for dielec. coating on electrodes of optical imaging devices)
IT 38638-43-6P, Naphthoquinone-(1,2)-diazide-5-sulfonyl chloride 61445-50-9DP, 2,3',4,4'-Tetrahydroxybenzophenone, reaction product with naphthoquinone-(1,2)-diazide-5-sulfonyl chloride 236095-20-8P 385793-81-7P 385793-82-8P 385808-78-6P
(polyimide in photoresist composition for dielec. coating on electrodes of optical imaging devices)
IT 300544-87-0, PW 1000
(polyimide in photoresist composition for dielec. coating on electrodes of optical imaging devices)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 14 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:523650 HCAPLUS Full-text
DOCUMENT NUMBER: 135:129565
TITLE: Positive-working light-sensitive resin composition for preparation of heat-resistant polyimide and method for pattern formation for electronic parts using same
INVENTOR(S): Sasaki, Mamoru; Anzai, Takanori; Fujieda, Nagatoshi
PATENT ASSIGNEE(S): Hitachi Chemical Du Pont Micro System Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001194791	A	20010719	JP 2000-148562 <--	20000519
JP 3755382	B2	20060315		

PRIORITY APPLN. INFO.: JP 1999-309020 A 19991029 <--
ED Entered STN: 19 Jul 2001
AB The title composition contains a polyimide or a polyoxazole precursor, a photoacid generator, and an acid-sensitive alkali-solubilizable compound, wherein the acid-sensitive alkali-solubilizable compound has OH groups protected with an acetal or a ketal or a carboxyl with acid-sensitive protecting groups. The composition, which contains the polyimide or polyoxazole precursor, the photoacid generator, and the acid-sensitive alkali-

solubilizable compound, provides resin layers of the high sensitivity, the good pattern profile, and the high heat-resistance.

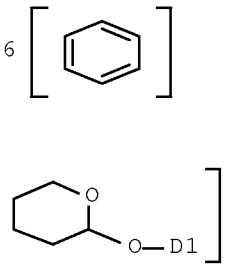
IT 350613-75-1

(pos.-working light-sensitive resin composition for preparation of heat-resistant polyimide and method for pattern formation for electronic parts using same)

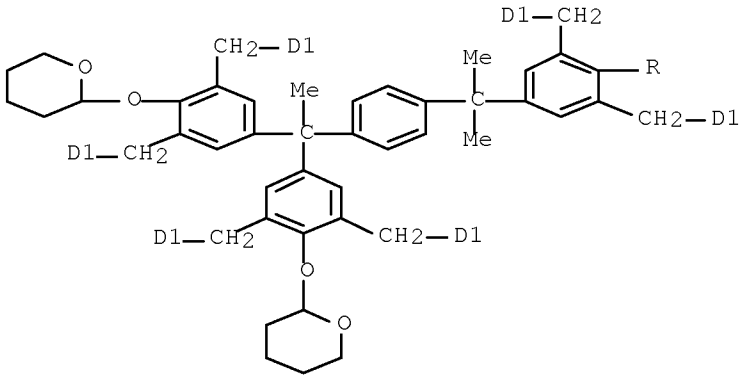
RN 350613-75-1 HCAPLUS

CN 2H-Pyran, 2,2',2'',2'''-[[1-[4-[1-methyl-1-[4-[(tetrahydro-2H-pyran-2-yl)oxy]-3,5-bis[[[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]methyl]phenyl]ethyl]phenyl]ethylidene]bis[[2-[(tetrahydro-2H-pyran-2-yl)oxy]-5,1,3-benzenetriyl]bis(methylenephenyleneoxy)]]tetrakis[tetrahydro- (9CI) (CA INDEX NAME)

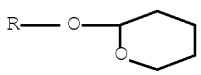
PAGE 1-A



PAGE 2-A



PAGE 3-A



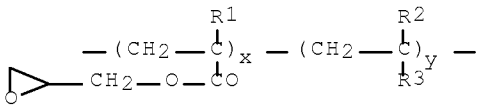
IC ICM G03F007-039
ICS C08K005-00; C08L079-06; C08L079-08; G03F007-037; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT Electronic device fabrication
Heat-resistant materials
Light-sensitive materials
Photoresists
(pos.-working light-sensitive resin composition for preparation of heat-resistant polyimide and method for pattern formation for electronic parts using same)
IT 85342-62-7 146793-37-5, Diphenyliodonium 8-anilinonaphthalene-1-sulfonate 163090-01-5 350613-73-9 350613-75-1
(pos.-working light-sensitive resin composition for preparation of heat-resistant polyimide and method for pattern formation for electronic parts using same)

L51 ANSWER 15 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:228371 HCAPLUS Full-text
DOCUMENT NUMBER: 134:259215
TITLE: Anti-reflection polymer towards 193 nm light used in wafer patterning for semiconductor device fabrication
INVENTOR(S): Hong, Sung Eun; Chung, Min Ho; Kim, Hyung Soo; Chung, Jae Chang; Paek, Ki Ho
PATENT ASSIGNEE(S): Hyundai Electronics Industries Co., Ltd., S. Korea
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001083696	A	20010330	JP 2000-227521 <--	20000727
KR 2001011770	A	20010215	KR 1999-31300 <--	19990730

PRIORITY APPLN. INFO.: KR 1999-31300 A 19990730 <--

ED Entered STN: 30 Mar 2001
GI



I

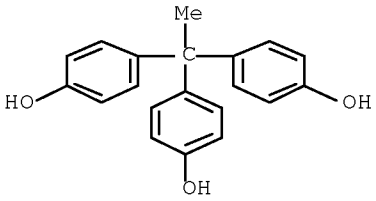
AB The title polymer contains crosslinking epoxy groups and Ph groups, which absorbs 193 nm light, and has structure I (R1-2 = H, OH, CH3, CH2OH, etc.; R3 = Ph ring containing group; x:y = (0.0-1.0):(0.1-1.0)). The polymer shows the

good contact with a wafer due to the crosslinking epoxy group and the good anti-reflection towards 193 nm light due to the Ph groups.

IT 27955-94-8
(anti-reflection polymer for 193 nm light used in pattern formation of wafer during semiconductor device fabrication)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-004
ICS C08F020-32; C09D163-10; G02B001-11; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 76

ST anti reflection polymer light wafer semiconductor device fabrication

IT Antireflective films
Photoresists
Semiconductor device fabrication
(anti-reflection polymer for 193 nm light used in pattern formation of wafer during semiconductor device fabrication)

IT 79-41-4, Methacrylic acid, reactions 106-89-8, Epichlorohydrin, reactions 556-52-5, Glycidol 814-68-6, Acryloyl chloride 1592-20-7, 4-Vinylbenzyl chloride 27955-94-8
(anti-reflection polymer for 193 nm light used in pattern formation of wafer during semiconductor device fabrication)

IT 106-91-2P, Glycidyl methacrylate 2653-39-6P 331622-73-2P
(anti-reflection polymer for 193 nm light used in pattern formation of wafer during semiconductor device fabrication)

IT 86249-18-5P, Glycidyl methacrylate-α-methylstyrene copolymer 189117-83-7P 260369-03-7P 331622-75-4P 331622-76-5P 331622-77-6P
(anti-reflection polymer for 193 nm light used in pattern formation of wafer during semiconductor device fabrication)

L51 ANSWER 16 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:117235 HCAPLUS Full-text
DOCUMENT NUMBER: 134:170827
TITLE: Positive-working light-sensitive photoresist resin composition for semiconductor device fabrication
INVENTOR(S): Makabe, Hiroaki; Hirano, Takashi; Banba, Toshio
PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001042523	A	20010216	JP 1999-211506 <--	19990727
PRIORITY APPLN. INFO.:			JP 1999-211506 <--	19990727

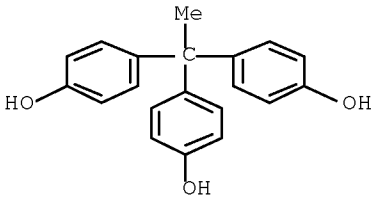
ED Entered STN: 16 Feb 2001

AB The title composition contains 100 parts of a polyamide, 1-50 parts of a photosensitizer, and 0.5-10 parts of an aromatic amine. The composition provides the high sensitivity and the high residual film rate.

IT 27955-94-8D, 1,1,1-Tris(4-hydroxyphenyl)ethane, partial ester of 5-sulfonyl-1,2-naphthoquinodiazide
(sensitizer in pos.-working light-sensitive photoresist resin composition)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-027
ICS G03F007-004; G03F007-022

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

ST pos working light sensitive photoresist resin compn semiconductor device

IT Photoresists
Semiconductor device fabrication
(pos.-working light-sensitive resin composition for semiconductor device fabrication)

IT Polyamides, preparation
(pos.-working light-sensitive resin composition for semiconductor device fabrication)

IT 91-73-6 403-46-3
(aromatic amine in pos.-working light-sensitive photoresist resin composition)

IT 100-21-0DP, Terephthalic acid, reaction products with 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane and isophthalic acid 121-91-5DP, Isophthalic acid, reaction products with 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane and phthalic acid 83558-87-6DP, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane, reaction products with isophthalic acid and phthalic acid
(pos.-working light-sensitive resin composition for semiconductor device fabrication)

IT 826-62-0DP, 5-Norbornene-2,3-dicarboxylic anhydride, polymer with 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane derivative 26041-86-1P, Diphenyl ether-4,4'-dicarboxylic

acid-3,3'-diamino-4,4'-dihydroxydiphenyl sulfone copolymer
112492-60-1P, Diphenyl ether-4,4'-dicarboxylic
acid-hexafluoro-2,2-bis(3-amino-4-hydroxyphenyl)propane copolymer
(pos.-working light-sensitive resin composition for semiconductor device fabrication)

IT 27955-94-8D, 1,1,1-Tris(4-hydroxyphenyl)ethane, partial ester of 5-sulfonyl-1,2-naphthoquinodiazide
(sensitizer in pos.-working light-sensitive photoresist resin composition)

L51 ANSWER 17 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:861931 HCAPLUS Full-text
DOCUMENT NUMBER: 134:49198
TITLE: Positive-working photosensitive polyimide precursor composition
INVENTOR(S): Tomikawa, Masao; Suwa, Mitsuhito; Fujita, Yoji
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000073852	A1	20001207	WO 2000-JP3470 <--	20000530
W: CN, KR, SG, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000338666	A	20001208	JP 1999-153722 <--	19990601
JP 2001064507	A	20010313	JP 1999-282466 <--	19991004
CN 1310809	A	20010829	CN 2000-800643 <--	20000530
CN 1275094	C	20060913		
EP 1132773	A1	20010912	EP 2000-931608 <--	20000530
EP 1132773	B1	20070711		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
CN 1971418	A	20070530	CN 2006-10114895 <--	20000530
AT 366952	T	20070815	AT 2000-931608 <--	20000530
TW 230182	B	20050401	TW 2000-89110601 <--	20000531
US 6524764	B1	20030225	US 2001-744734 <--	20010129

PRIORITY APPLN. INFO.:			
JP 1999-153722 <--	A	19990601	
JP 1999-179605 <--	A	19990625	
JP 1999-282466 <--	A	19991004	
CN 2000-800643 <--	A3	20000530	
WO 2000-JP3470	W	20000530	

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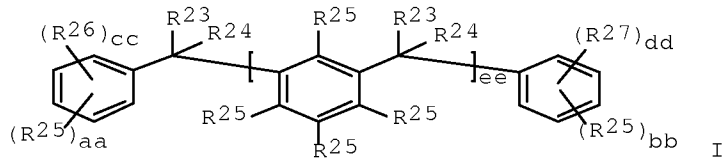
OTHER SOURCE(S): MARPAT 134:49198
ED Entered STN: 08 Dec 2000
GI



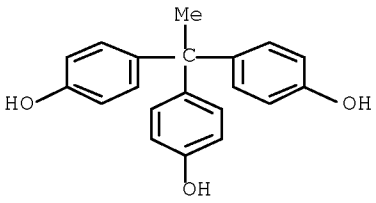
I

AB A pos.-working photosensitive polyimide precursor composition comprises a hydroxylated polyimide precursor and the following photosensitive compound (a) or (b): (a) an ester of a phenol having a dipole moment of 0.1-1.6 D with naphthoquinone diazide sulfonic acid, or (b) a mixture or ester of a phenol I (R23-24, R26-27 = alkyl; R25 = OH; aa, bb, cc, dd = 0-3 integer; ee = 1-3 integer) with naphthoquinone diazide sulfonic acid. The composition maintain the thinning of the unexposed part of the photoresist after the development and the shortened developing time.

IT 27955-94-8
(naphthoquinonediazide compound in pos. working photosensitive polyimide precursor composition)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-022
ICS G03F007-037; C08L077-06; C08L079-08

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

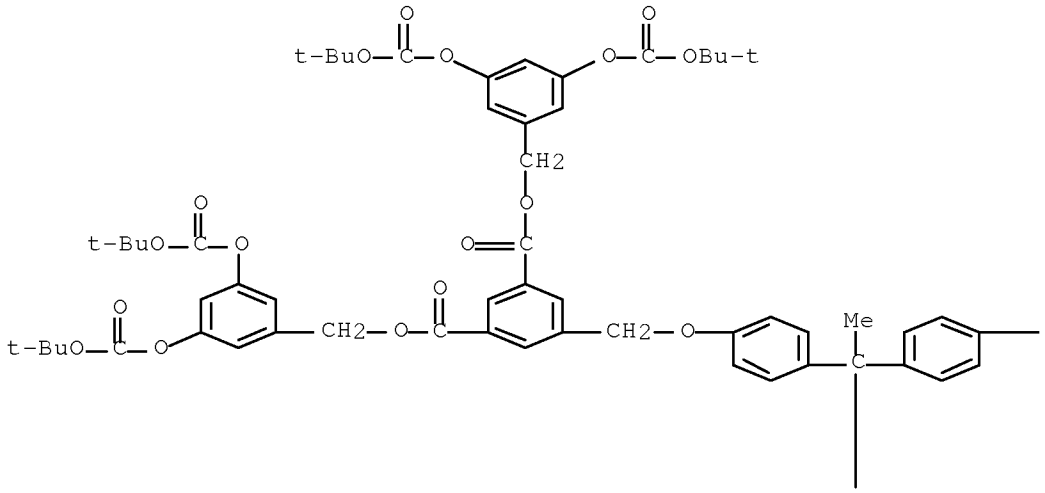
IT Photoresists
(pos. working photosensitive polyimide precursor composition)

IT 80-05-7, Bisphenol A, reactions 95-55-6, 2-Aminophenol 99-57-0, 2-Amino-4-nitrophenol 99-63-8, Isophthalic acid chloride 99-89-8, 4-Isopropylphenol 121-90-4, 3-Nitrobenzoyl chloride 122-04-3, 4-Nitrobenzoyl chloride 135-19-3, 2-Naphthol, reactions 552-30-7, Trimellitic anhydride 1965-09-9, 4,4'-Dihydroxydiphenyl ether 24197-34-0 27955-94-8 38638-43-6, 1,2-Naphthoquinonediazide-5-sulfonic acid chloride 53091-58-0 83558-87-6, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane 93933-64-3 103452-31-9D, 1,2-Naphthoquinone diazide-6-sulfonic acid chloride, s 151319-83-4 170636-13-2 211557-95-8 312610-22-3

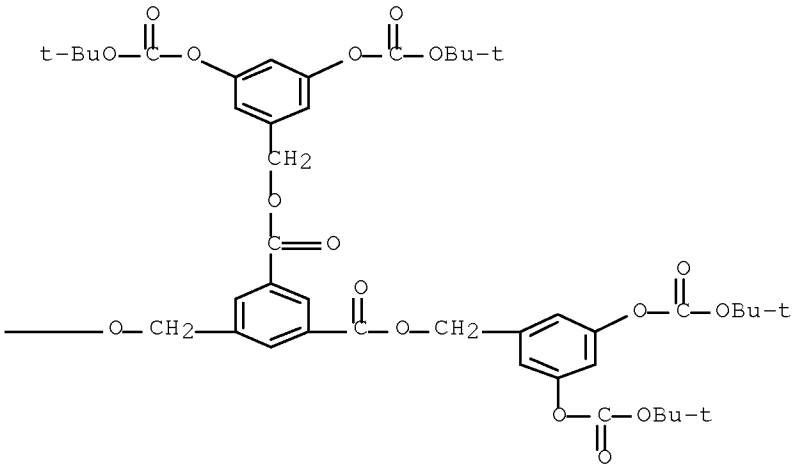
312610-24-5
(naphthoquinonediazide compound in pos. working photosensitive polyimide precursor composition)
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 18 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:806430 HCAPLUS Full-text
DOCUMENT NUMBER: 134:214835
TITLE: Dendrimer-based chemically amplified resists for sub-100-nm lithography
AUTHOR(S): Tully, David C.; Trimble, Alexander R.; Frechet, Jean M. J.
CORPORATE SOURCE: Dep. Chem., Univ. of California, Berkeley, CA, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2000), 3999(Pt. 2, Advances in Resist Technology and Processing XVII), 1202-1206
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 16 Nov 2000
AB Several new poly(benzyl ether) and poly(benzyl ester) dendrimers that incorporate acid- and thermally-labile peripheral groups have been synthesized. tert-Bu ester terminated poly(benzyl ether) dendrimers were synthesized using α-bromo-tert-Bu acetate in the preliminary protection step to afford the first generation alc. A standard bromination of the focal point benzylic alc. was used for the activation step, while standard Williamson ether conditions were used for the coupling steps to afford higher generation poly(benzyl ether) dendrons. tert-Bu ester terminated dendrons were then coupled to a difunctional core to produce the [G-3] dendrimer. tert-Bu carbonate (t-Boc) terminated poly(benzyl ester) dendrimers were also synthesized. This class of dendrimers was synthesized by first protecting monomeric building block 3,5-dihydroxybenzaldehyde with di-t-Bu dicarbonate. A reductive activation step afforded the [G-1] alc. The growth steps were accomplished by either Mitsunobu etherification with 3,5-dihydroxybenzaldehyde or by esterification with 5-hydroxymethylisophthalic acid. Finally, coupling of the benzyl alc. dendrons to a polyfunctional core afforded second and third generation dendrimers. Chemical amplified resists formulated from both t-Bu ester and t-Boc terminated dendrimers show high sensitivity to DUV and e-beam irradiation Feature sizes well below 100 nm have been routinely patterned using e-beam lithog.
IT 267874-32-8P
(tert-Bu carbonate terminated dendrimer for chemical amplified resists for sub-100 nm photolithog.)
RN 267874-32-8 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5,5',5''-[ethylidynetris(4,1-phenyleneoxymethylene)]tris-, hexakis[[3,5-bis[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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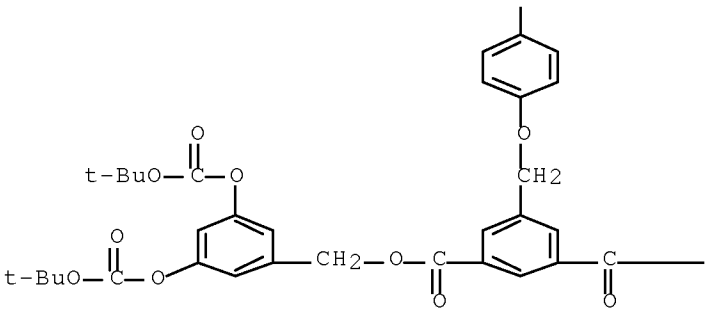
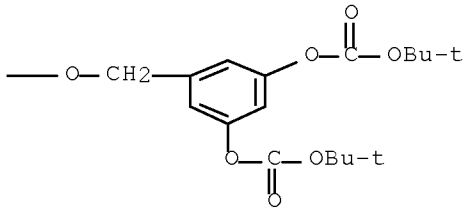


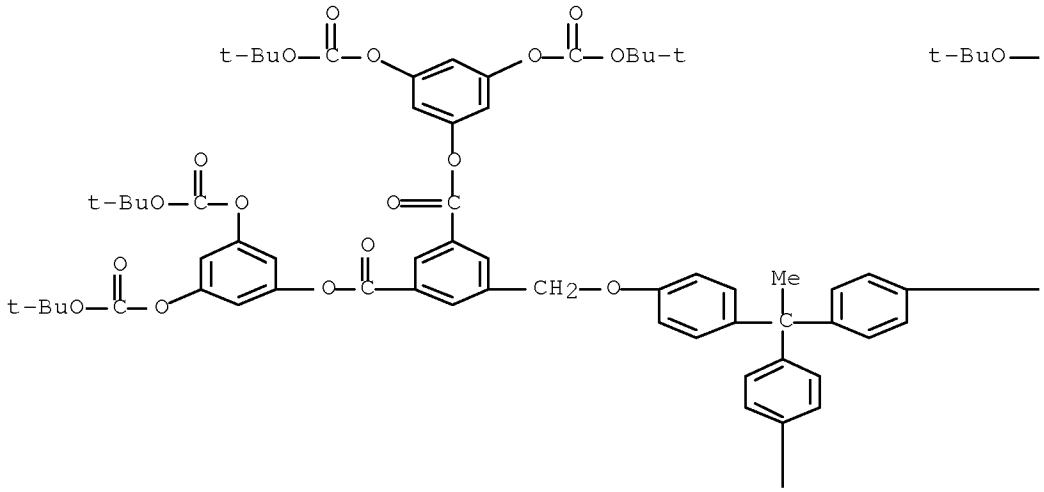


CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST dendrimer based chem amplified photoresist vacuum UV lithog
IT Electron beam resists
Photoresists
(chemical amplified; chemical amplified resists for sub-100 nm lithog. based on tert-Bu acetate- or tert-Bu carbonate terminated dendrimers)
IT 267874-29-3 328084-37-3 328084-38-4 328084-39-5 328084-40-8
(preparation of tert-Bu ester terminated dendrimer for photoresist application)
IT 26153-38-8, 3,5-Dihydroxybenzaldehyde
(reaction with di-tert-Bu carbonate in preparation of ter-Bu carbonate terminated dendrimer for photoresist application)
IT 267874-32-8P
(tert-Bu carbonate terminated dendrimer for chemical amplified resists for sub-100 nm photolithog.)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

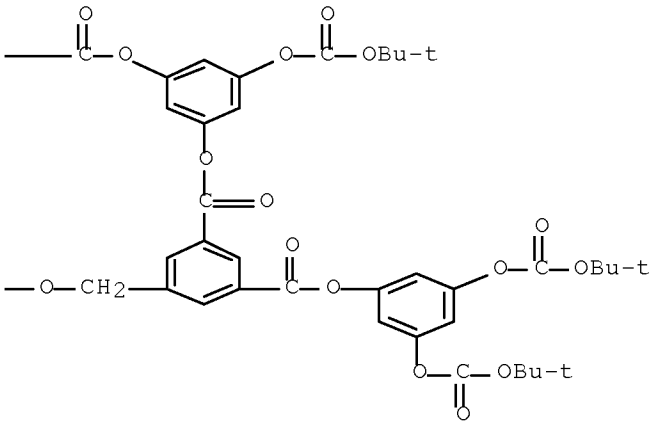
L51 ANSWER 19 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:633845 HCAPLUS Full-text
DOCUMENT NUMBER: 133:357149
TITLE: Dendrimers with thermally labile end groups: An alternative approach to chemically amplified resist materials designed for sub-100 nm lithography
AUTHOR(S): Tully, David C.; Trimble, Alexander R.; Frechet, Jean M. J.
CORPORATE SOURCE: Department of Chemistry, University of California at Berkeley, Berkeley, CA, 94720-1460, USA
SOURCE: Advanced Materials (Weinheim, Germany) (2000), 12(15), 1118-1122
CODEN: ADVMEW; ISSN: 0935-9648
PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 13 Sep 2000
AB Chemical amplified resists are described which are based on tert-butoxycarbonyloxy-terminated dendrimers and photoacid generators. Resist formulations prepared from these dendrimers were highly sensitive to both deep-UV and electron-beam exposures, providing reproducible patterning <100 nm.
IT 305323-50-6P
(lithog. chemical amplified resists using tert-butoxycarbonyloxy-terminated dendrimers)
RN 305323-50-6 HCAPLUS
CN 1,3-Benzenedicarboxylic acid, 5,5',5''-[ethylidynetris(4,1-phenyleneoxymethylene)]tris-, hexakis[3,5-bis[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl] ester (9CI) (CA INDEX NAME)

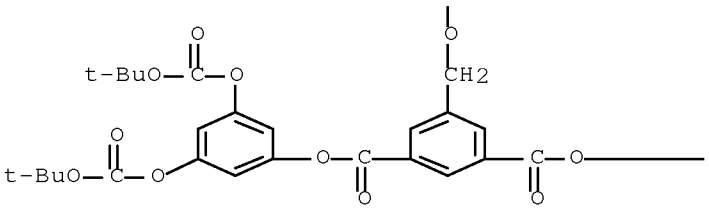
PAGE 1-A



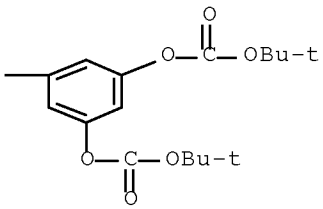
PAGE 1-B



PAGE 2-A



PAGE 2-B



CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST chem amplified lithog resist butoxycarbonyloxy terminated dendrimer; photoresist chem amplified butoxycarbonyloxy terminated dendrimer; electron beam resist chem amplified butoxycarbonyloxy terminated dendrimer
IT Electron beam resists
Photoresists
(chemical amplified; lithog. chemical amplified resists using tert-butoxycarbonyloxy-terminated dendrimers)
IT 305323-50-6P 305820-71-7P
(lithog. chemical amplified resists using tert-butoxycarbonyloxy-terminated dendrimers)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 20 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:452606 HCAPLUS Full-text
DOCUMENT NUMBER: 133:81573
TITLE: Positive-working photoresist composition and method for their pattern formation
INVENTOR(S): Yamanaka, Tsukasa
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

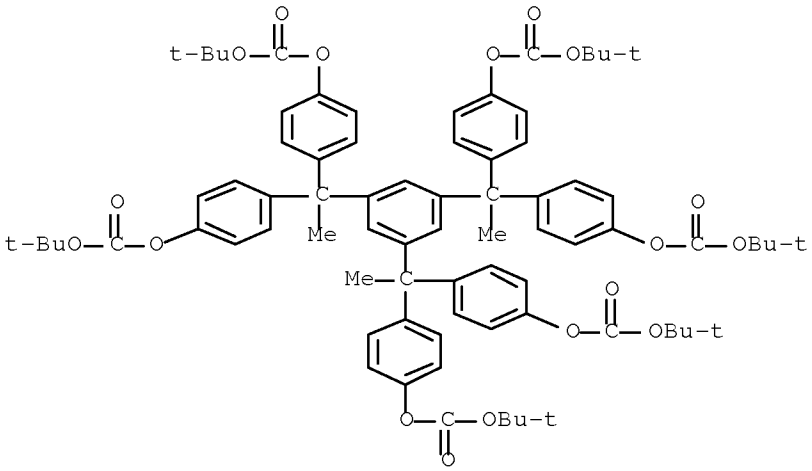
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000187316	A	20000704	JP 1998-365014 <--	19981222
PRIORITY APPLN. INFO.:			JP 1998-365014 <--	19981222

ED Entered STN: 05 Jul 2000

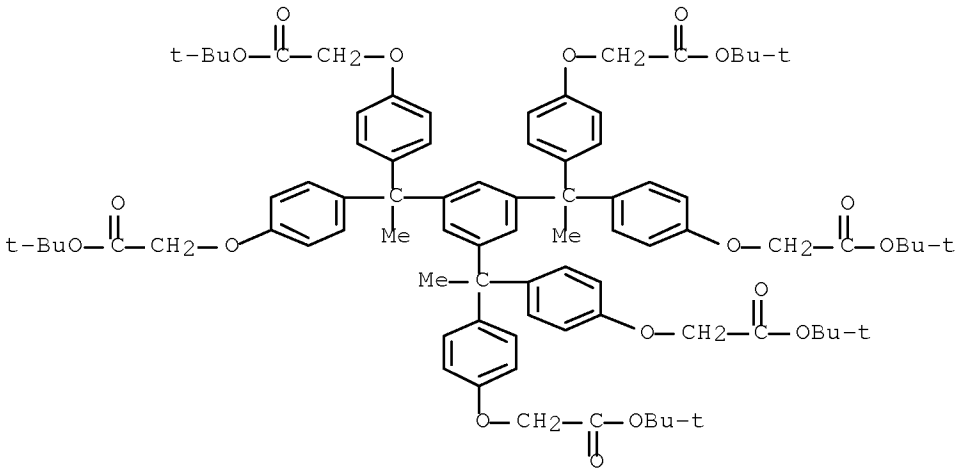
AB The title resin composition contains (a) a resin having an acetal group-protected repeating unit which is cleaved by the action of acid to increase the solubility to alkali, (b) a 1st photoacid generator, (c) a 2nd photoacid generator which is higher in cleavage efficient than the 1st photoacid generator, (d) a low-mol.-weight acid-cleavable dissoln. inhibitor, and (e) an organic base compound of an amount of 0.7/n-1.3/n mol. equivalent (n = number of the basic group in the compound) per 1 mol of the 2nd photoacid generator. A preferred Markush structure for the structural repeating unit of the resin is given. The composition is coated on a substrate, heat-treated, patternwise exposed to light of ≤300 nm, and developed with a developing solution after an optional heat treatment, to form a pattern. The composition shows high sensitivity toward far UV rays, especially, excimer laser beams and provides high resolution pattern with good profile and dimensional stability.

IT 153698-64-7 153698-65-8
(pos. photoresists and their pattern formation with far UV)

RN 153698-64-7 HCAPLUS
CN Carbonic acid, C,C',C'',C''',C'''',C'''''-[1,3,5-benzenetriyltris(ethylidenedi-4,1-phenylene)] C,C',C'',C''',C'''',C'''''-hexakis(1,1-dimethylethyl) ester (CA INDEX NAME)



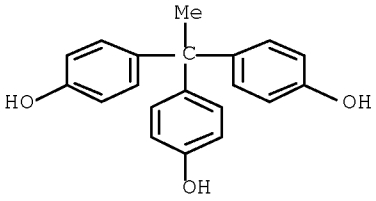
RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-004
ICS G03F007-004; C08K005-00; C08K005-02; C08L025-18; C08L101-00; C08L101-06; G03F007-032; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST pos working photoresist UV pattern formation; alkoxypolystyrene far UV pos working photoresist
IT Positive photoresists
(UV; pos. photoresists and their pattern formation with far UV)
IT Excimer lasers
(patterning by; pos. photoresists and their pattern formation with far UV)
IT 657-84-1, Sodium p-toluenesulfonate 4270-70-6, Triphenylsulfonium chloride 5421-53-4 25155-30-0, Sodium Dodecylbenzenesulfonate
(photoacid generator from; pos. photoresists and their pattern formation with far UV)
IT 142342-33-4P 205682-99-1P 279687-67-1P
(pos. photoresists and their pattern formation with far UV)
IT 484-47-9, 2,4,5-Triphenylimidazole 1122-58-3, 4-Dimethylaminopyridine 3001-72-7 153698-62-5 153698-63-6 153698-64-7 153698-65-8
(pos. photoresists and their pattern formation with far UV)

L51 ANSWER 21 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:176306 HCAPLUS Full-text
DOCUMENT NUMBER: 132:315731
TITLE: Three-component photoresists based on thermal crosslinking and acidolytic cleavage
AUTHOR(S): Moon, S.-Y.; Chung, C.-M.; Yamaoka, T.
CORPORATE SOURCE: Polymer Materials Laboratory, Chemical Sector, Samsung Advanced Institute of Technology, Taejon, 305-380, S. Korea
SOURCE: Polymer (2000), 41(11), 4013-4019
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal

LANGUAGE: English
ED Entered STN: 19 Mar 2000
AB Three vinyl ether monomers, 2,2-bis(4-[2'- (vinyloxy)ethoxy]phenyl)propane, 1,3,5-tris[2'-(vinyloxy)ethoxy]benzene, and 1,1,1-tris(4-[2'-(vinyloxy)ethoxy]phenyl)-ethane were synthesized and studied as thermal crosslinking agents in a three-component chemical amplified photoresist system. During prebake the resists were completely insolubilized in aqueous base through thermal crosslinking between poly(p-hydroxystyrene) binder polymer and the vinyl ether monomers. Upon exposure to UV and subsequent postexposure bake, the crosslinks were cleaved by photogenerated acid, leading to effective solubilization of the exposed areas. The thermal crosslinking and acid-catalyzed cleavage of the crosslinks were investigated by IR spectroscopy. Degree of conversion of vinyl ether groups, dissoln. rate and photosensitivity of the resists are strongly dependent on prebaking temperature The resists showed relatively high sensitivity at 365 nm, and afforded pos.-tone images by alkaline development.
IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(reaction with 2-chloroethyl vinyl ether in synthesis of vinyl ether crosslinking agents for three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist thermal crosslinking acidolytic cleavage; lithog chem amplification photoresist thermal crosslinking acidolytic cleavage; vinyl ether polyhydroxystyrene photoacid generator photoresist thermal crosslinking acidolysis
IT Hydrolysis
(acid; three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage containing vinyl ether crosslinking monomer and photoacid generator and poly(hydroxystyrene))
IT Photoresists
(chemical amplified; three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage containing vinyl ether crosslinking monomer and photoacid generator and poly(hydroxystyrene))
IT Crosslinking
(thermal; three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage containing vinyl ether crosslinking monomer and photoacid generator and poly(hydroxystyrene))
IT IR spectra
(three-component chemical amplified photoresist system based

on thermal crosslinking and acidolytic cleavage containing vinyl ether crosslinking monomer and photoacid generator and poly(hydroxystyrene))

IT 137308-86-2D, anilinonaphthalene derivs.
(photoacid generator; three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage containing vinyl ether crosslinking monomer and photoacid generator and poly(hydroxystyrene))

IT 110-75-8, 2-Chloroethyl vinyl ether
(reaction with 1,1,1-tris(4-hydroxyphenyl)ethane in synthesis of vinyl ether crosslinking agents for three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage)

IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(reaction with 2-chloroethyl vinyl ether in synthesis of vinyl ether crosslinking agents for three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage)

IT 52411-04-8P, 2,2-Bis(4-[2'-(vinyloxy)ethoxy]phenyl(propane
134905-23-0P, 1,1,1-Tris(4-[2'-(vinyloxy)ethoxy]phenyl)ethane
142248-13-3P, 1,3,5-Tris[2'-(vinyloxy)ethoxy]benzene
(thermal crosslinking agent; three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage)

IT 24979-70-2, Poly(p-hydroxystyrene)
(three-component chemical amplified photoresist system based on thermal crosslinking and acidolytic cleavage containing vinyl ether crosslinking monomer and photoacid generator and poly(hydroxystyrene))

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 22 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:752381 HCAPLUS Full-text
DOCUMENT NUMBER: 132:17147
TITLE: Positive-working photosensitive composition
INVENTOR(S): Kodama, Kunihiko
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11327149	A	19991126	JP 1999-70372 <--	19990316
JP 3949313	B2	20070725		
US 6060213	A	20000509	US 1999-270516 <--	19990317
PRIORITY APPLN. INFO.:			JP 1998-66990 A <--	19980317

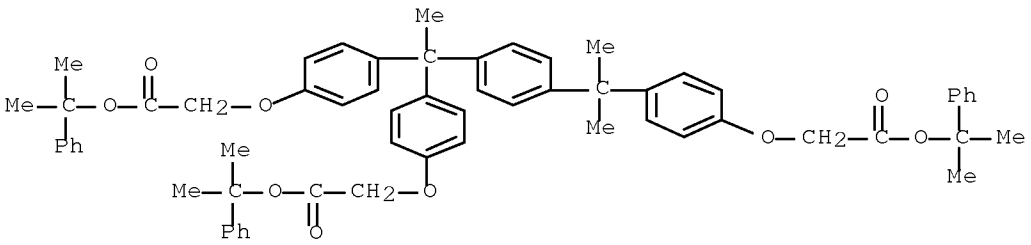
OTHER SOURCE(S): MARPAT 132:17147
ED Entered STN: 26 Nov 1999
GI For diagram(s), see printed CA Issue.
AB The title photosensitive composition contains (a) a polycyclic basic N-containing compound I (Y, Z = straight-chain, branched or cyclic alkylene

which may contain heteroatoms and may be substituted), (b) ≥1 compound selected from II-IV [R1-37 = H, straight-chain, branched or cyclic alkyl, straight-chain, branched or cyclic alkoxy, OH, halo, SR38 (R38 = straight-chain, branched or cyclic alkyl, aryl); X- = benzenesulfonic acid, naphthalenesulfonic acid or anthracene sulfonic acid anion which has (i) ≥1 group selected from branched or cyclic C≥8 alkyl and alkoxy, ≥2 groups selected from straight-chain, branched or cyclic C4-7 alkyl and alkoxy, or ≥3 groups selected from straight-chain, branched or cyclic C1-3 alkyl and alkoxy or (ii) ≥1 group selected from ester, R39CO, R40CONH, R41NH, R42OCONH, R43NHCO2, R44NHCONH, R45NHCSN, R46SO2NH, and NO2 groups (R39-46 = straight-chain, branched or cyclic alkyl, aryl)], which generates an acid upon activating radiation irradiation, and (c) a resin having groups which are decomposed by the action of acid to increase the solubility in alkali developing solns. The composition may contain (a), (b), (d) a low-mol.-weight dissoln.-inhibiting compound with mol. weight ≤3000 which has an acid-decomposable group and of which the solubility in alkali developing solns. increases by the action of acid, and (e) a resin insol. in water and soluble in alkali developing solns. The composition shows high photosensitivity and provides a high resolution pattern with good profile independent of the elapse of time from exposure to bake.

IT 153698-69-2P 196709-88-3P
(dissoln. inhibitor; photoresist composition containing nitrogen-containing basic compound, acid generator, and alkali-soluble resin)

RN 153698-69-2 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

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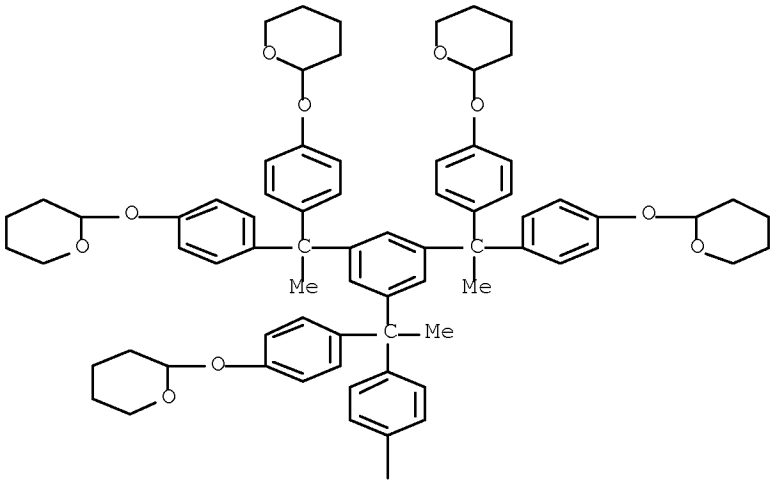

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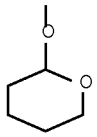


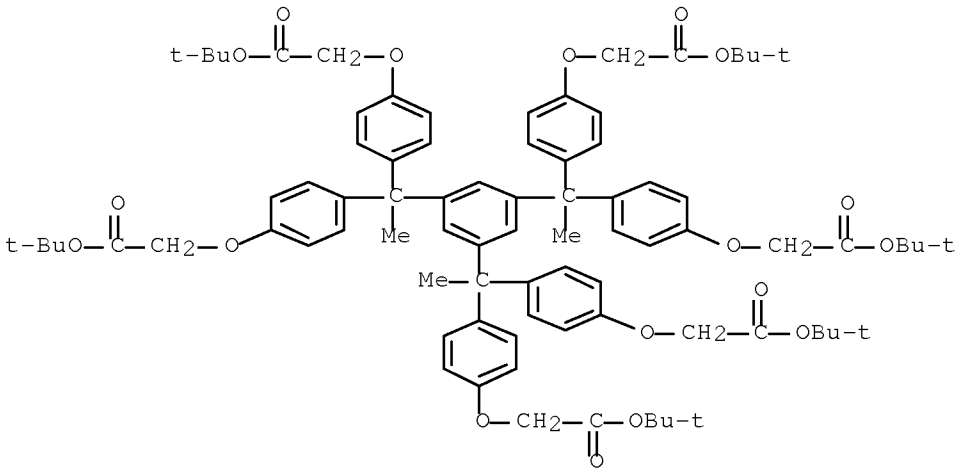
IC ICM G03F007-039
ICS G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist nitrogen basic compd; acid generator sulfonium iodonium; dissoln inhibitor photoresist; alkali soluble resin photoresist
IT Photoresists
(photoresist composition containing nitrogen-containing basic compound, acid generator, and alkali-soluble resin)
IT 153698-63-6P 153698-69-2P 196709-88-3P
(dissoln. inhibitor; photoresist composition containing nitrogen-containing basic compound, acid generator, and alkali-soluble resin)
IT 64-19-7DP, Acetic acid, esters with polyhydroxystyrene butoxyethyl ether, preparation 109-53-5DP, Isobutyl vinyl ether, ethers with polyhydroxystyrene 109-92-2DP, Ethyl vinyl ether, ethers with polyhydroxystyrene 110-87-2DP, 2,3-Dihydro-4H-pyran, ethers with polyhydroxystyrene 24979-70-2DP, VP 8000, ethers 147625-42-1P 197447-16-8P 251463-23-7P 251463-24-8P
(photoresist composition containing nitrogen-containing basic compound, acid generator, and alkali-soluble resin)
IT 3001-72-7 5036-02-2 6674-22-2 84030-20-6 196709-67-8 251463-18-0 251463-21-5
(photoresist composition containing nitrogen-containing basic compound,

acid generator, and alkali-soluble resin)

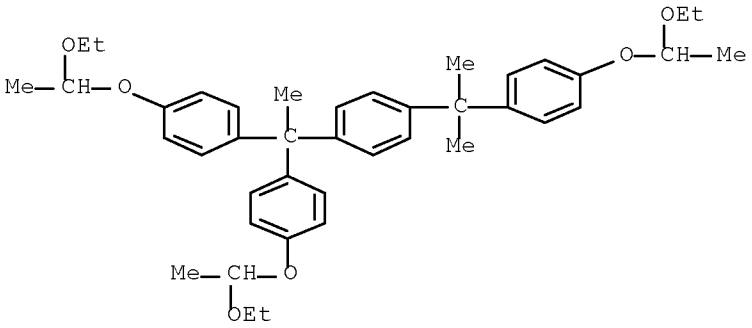
L51 ANSWER 23 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:394790 HCAPLUS Full-text
DOCUMENT NUMBER: 131:80784
TITLE: Positive-working photoresist composition containing two kinds of photoacid generator
INVENTOR(S): Uenishi, Kazuya; Kodama, Kunihiko; Aogo, Toshiaki; Sato, Kenichiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11167199	A	19990622	JP 1997-333145 <--	19971203
PRIORITY APPLN. INFO.:			JP 1997-333145 <--	19971203

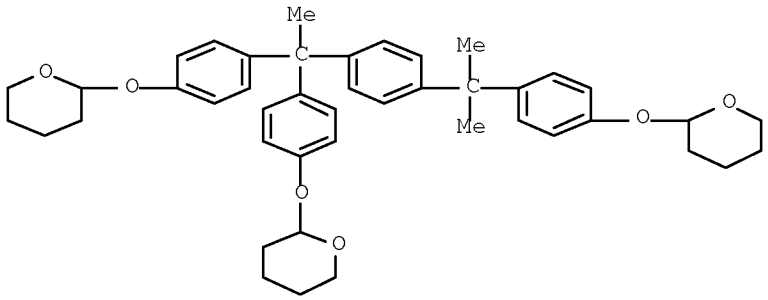
OTHER SOURCE(S): MARPAT 131:80784
ED Entered STN: 28 Jun 1999
AB The title photoresist composition contains a resin having a group that is decomposed in the action of acid to increase the solubility in alkaline developing solns. and a mixture of 2 types of photoacid-generators which are higher and lower in the effect of slowing down the dissoln. rate of the exposed portion. The composition may contain the mixture of the 2 photoacid-generators, a dissoln. inhibitor with mol. weight ≤3000 which has an acid-decomposable group and of which the solubility in alkaline developing solns. is increased by the action of acid, and a water-insol. and alkali-soluble resin. The composition shows high photosensitivity and provides a high resolution pattern with good profile, and the properties are independent of the elapse of time from exposure to baking.
IT 153698-65-8P 202396-81-4P
(dissoln. inhibitor; photoresist composition containing alkali soluble resin and two kinds of photoacid generator)
RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



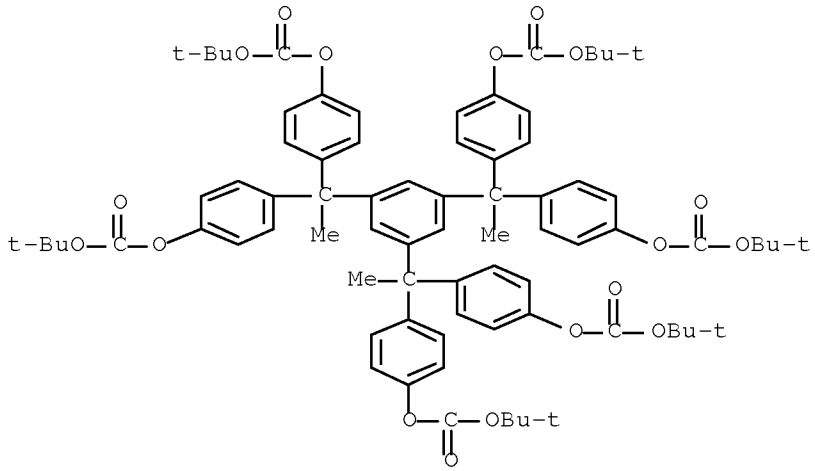
RN 202396-81-4 HCAPLUS
CN Benzene, 1-[1,1-bis[4-(1-ethoxyethoxy)phenyl]ethyl]-4-[1-[4-(1-ethoxyethoxy)phenyl]-1-methylethyl]- (CA INDEX NAME)



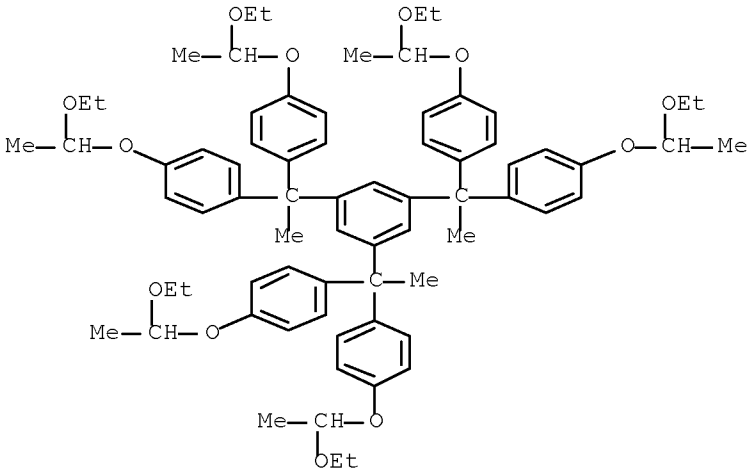
IT 153698-53-4 153698-64-7 228871-11-2
(dissoln. inhibitor; photoresist composition containing alkali soluble resin and two kinds of photoacid generator)
RN 153698-53-4 HCAPLUS
CN 2H-Pyran, 2,2'-[[1-[4-[1-methyl-1-[4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[tetrahydro- (CA INDEX NAME)



RN 153698-64-7 HCAPLUS
CN Carbonic acid, C,C',C'',C''',C'''',C'''''-[1,3,5-benzenetriyltris(ethylidenedi-4,1-phenylene)] C,C',C'',C''',C'''',C'''''-hexakis(1,1-dimethylethyl) ester (CA INDEX NAME)



RN 228871-11-2 HCAPLUS
CN Benzene, 1,3,5-tris[1,1-bis[4-(1-ethoxyethoxy)phenyl]ethyl]- (CA INDEX NAME)



IC ICM G03F007-004
ICS G03F007-00; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist alkali soluble resin; photoacid generator photoresist
IT Positive photoresists
(photoresist composition containing alkali soluble resin and two kinds of photoacid generator)
IT 153698-65-8P 202396-81-4P
(dissoln. inhibitor; photoresist composition containing alkali soluble resin and two kinds of photoacid generator)
IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 153698-53-4 153698-63-6 153698-64-7 228871-11-2
(dissoln. inhibitor; photoresist composition containing alkali soluble resin and two kinds of photoacid generator)
IT 56530-39-3P 197447-16-8P 205652-30-8P 205652-32-0P 205682-99-1P 220930-80-3P 228871-07-6P 228871-08-7P 228871-10-1P 229016-19-7P
(photoresist composition containing alkali soluble resin and two kinds of photoacid generator)
IT 10409-07-1 125325-82-8, p-Hydroxystyrene-p-(2-tetrahydropyranyloxy)styrene copolymer 142952-62-3, tert-Butoxycarbonylmethyloxystyrene-p-hydroxystyrene copolymer 158593-28-3, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer 196709-91-8, p-(1-tert-Butoxyethoxy)styrene-p-hydroxystyrene copolymer 205683-01-8 214208-08-9 214208-09-0 214208-11-4 214208-12-5 214208-14-7 229016-21-1
(photoresist composition containing alkali soluble resin and two kinds of photoacid generator)

L51 ANSWER 24 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:365907 HCAPLUS Full-text
DOCUMENT NUMBER: 131:65897
TITLE: Positive-working photoresist composition containing iodonium salt acid generator
INVENTOR(S): Kodama, Kunihiko; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

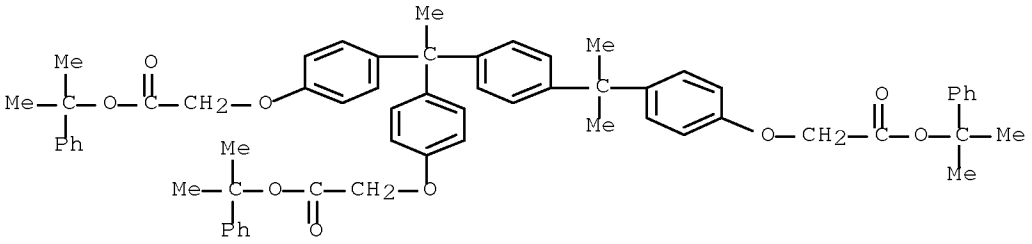
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11153870	A	19990608	JP 1997-319976 <--	19971120
PRIORITY APPLN. INFO.:			JP 1997-319976 <--	19971120

ED Entered STN: 14 Jun 1999

AB The title composition comprises an iodonium salt having ≥2 iodonium structures in its mol. and generating an acid upon active ray or radiation irradiation and a resin having a group which is decomposed by the action of acid to increase the solubility in alkaline developing solns. The composition may comprise the iodonium salt, a dissoln. inhibiting compound with mol. weight ≤3000 which has an acid-decomposable group and of which the solubility in alkaline developing solns. is increased by the action of acid, and a resin insol. in water and soluble in alkaline developing solns. The difference of dissoln. rates between the exposed and unexposed regions is large and the composition provides a high resolution pattern and shows high photosensitivity.

IT 153698-69-2P 196709-88-3P
(pos.-working resist composition containing iodonium salt acid generator, alkali-soluble resin, and dissoln. inhibitor)

RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



RN 196709-88-3 HCAPLUS
CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

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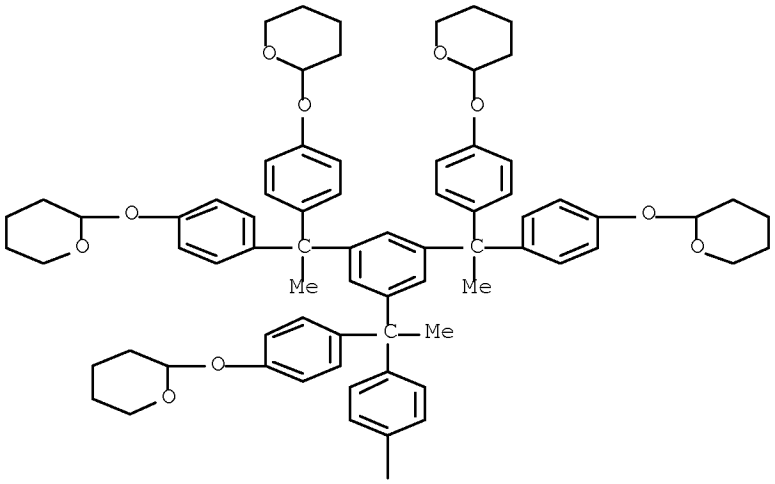

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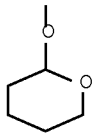


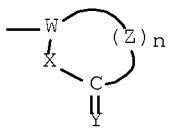
IC ICM G03F007-039
ICS G03F007-004; G03F007-023; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST photoresist iodonium salt acid generator; alkali soluble resin photoresist; dissoln inhibitor photoresist
IT Positive photoresists
(pos.-working resist composition containing iodonium salt acid generator and
alkali-soluble resin)
IT 153698-63-6P 153698-69-2P 196709-88-3P
208581-77-5P
(pos.-working resist composition containing iodonium salt acid generator, alkali-soluble resin, and dissoln. inhibitor)

L51 ANSWER 25 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:231808 HCAPLUS Full-text
DOCUMENT NUMBER: 130:318598
TITLE: Photosensitive composition useful as positive-working resist
INVENTOR(S): Fujinomori, Akira
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11095437	A	19990409	JP 1997-258765 <--	19970924
PRIORITY APPLN. INFO.:			JP 1997-258765 <--	19970924

ED Entered STN: 14 Apr 1999
GI



I

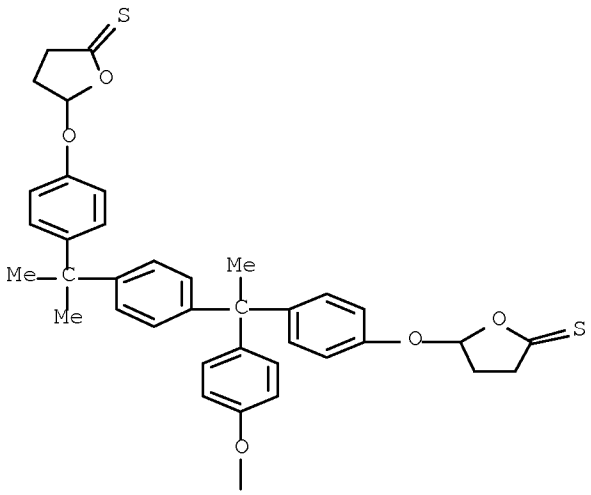
AB The title composition contains a compound having ≥1 acid-decomposable group I (W = N, CH, trivalent organic group; X, Y = O, S; Z = divalent organic group; n = 1-15), whose solubility in aqueous alkaline solns. is increased by the action of acid. The composition may contain (1) a compound generating acid under active ray or radiation irradiation, a resin insol. in water and soluble in aqueous alkaline solns., and the above compound, (2) the acid generator and a polymer-type dissoln.-inhibiting compound having ≥1 group I, whose solubility in aqueous alkaline solns. is increased by the action of acid, or (3) the acid generator and a non-polymer-type and polymer-type dissoln.-inhibiting compound, both of which have ≥1 group I and show the above property. The composition shows high photosensitivity and provides a high resolution resist pattern with good profile and these properties are independent of the elapse of time till postbaking after exposure.

IT 223382-65-8 223382-69-2
(pos. working photoresist containing acid-decomposable (polymeric) compound showing retention of sensitivity and resolution until postbaking after exposure)

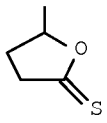
RN 223382-65-8 HCAPLUS

CN 2(3H)-Furanthione, 5,5'-[[1-[4-[1-methyl-1-[4-[(tetrahydro-5-thioxo-2-furanyl)oxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A

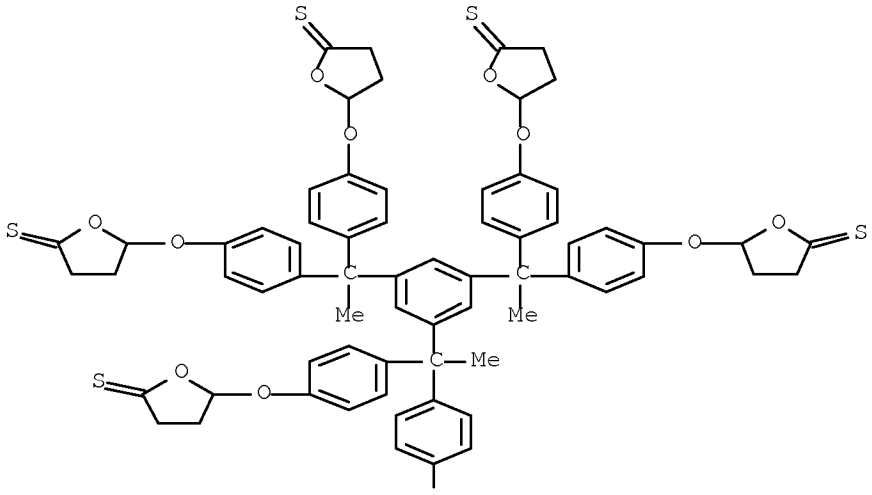


PAGE 2-A

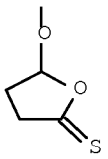


RN 223382-69-2 HCAPLUS
CN 2(3H)-Furanthione, 5,5',5'',5''',5'''',5'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[dihydro-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



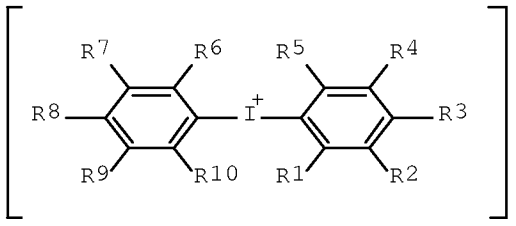
IC ICM G03F007-039
ICS G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos working photoresist acid decomposable compd; exposure postbaking retention sensitivity reson photoresist; polymer dissoln inhibitor pos working photoresist
IT Positive photoresists
(pos. working photoresist containing acid-decomposable (polymeric) compound showing retention of sensitivity and resolution until postbaking after exposure)
IT 223382-64-7P
(intermediate; pos. working photoresist containing acid-decomposable (polymeric) compound from)
IT 16507-31-6 19172-47-5 148452-55-5, 1,3,3,5-Tetrakis(4-hydroxyphenyl)pentane
(pos. working photoresist containing acid-decomposable (polymeric) compound from)
IT 223382-60-3P
(pos. working photoresist containing acid-decomposable (polymeric) compound showing retention of sensitivity and resolution until postbaking after exposure)
IT 24979-70-2DP, p-Hydroxystyrene homopolymer, reaction product with bromohydroxybutanoic acid thionolactone 223382-64-7DP, reaction product with polyhydroxystyrene
(pos. working photoresist containing acid-decomposable (polymeric) compound showing retention of sensitivity and resolution until postbaking after exposure)
IT 223382-65-8 223382-69-2
(pos. working photoresist containing acid-decomposable (polymeric) compound showing retention of sensitivity and resolution until postbaking after exposure)
IT 24979-74-6D, p-Hydroxystyrene-styrene copolymer, reaction product with bromohydroxybutanoic acid thionolactone
(pos. working photoresist containing acid-decomposable (polymeric) compound showing retention of sensitivity and resolution until postbaking after exposure)

L51 ANSWER 26 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:23393 HCAPLUS Full-text
DOCUMENT NUMBER: 130:102900
TITLE: Positive-working photosensitive composition
INVENTOR(S): Kodama, kunihiko; Aogo, Toshiakik; Yagihara, Morio

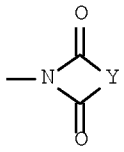
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11002895	A	19990106	JP 1997-156995 <--	19970613
PRIORITY APPLN. INFO.:			JP 1997-156995 <--	19970613

OTHER SOURCE(S): MARPAT 130:102900
ED Entered STN: 12 Jan 1999
GI



X?- I



II

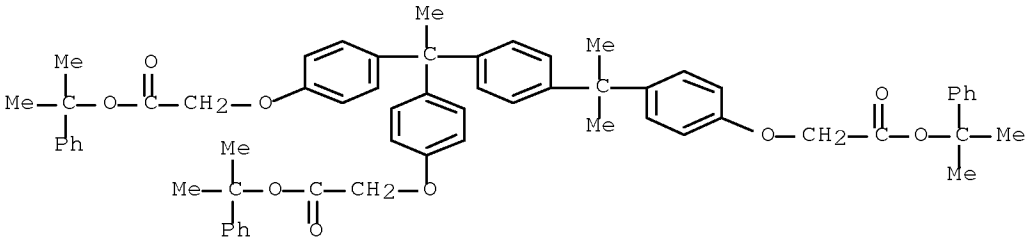
AB The title composition contains (a) an acid-generator I [R1-10 = H, halo, straight-chain, branched or cyclic alkyl or alkoxy, OH, NO2, sulfoamino, dialkylamino, ≥1 of R1-10 is NR'COR" or II; R' = H, alkyl, acyl, sulfonyl; R" = (substituted) alkyl, (substituted) aryl, R' and R" may link each other to form a ring; Y = straight-chain or branched alkylene, mono- or polycyclic alkylene which may contain hetero atoms, straight-chain or branched alkenylene, mono- or polycyclic alkenylene which may contain hetero atoms, arylene, aralkylene (these groups may be substituted), Y may link to other iodonium salt residue; Xn- = C1-20 straight-chain, branched or cyclic alkylsulfonate ion with n valence which may be substituted, arylsulfonate ion which may be substituted by C1-20 straight-chain, branched or cyclic alkyl or alkoxy, OH, NO2, halo, halo-substituted alkyl, alkoxycarbonyl, acyl, acylamino or sulfonylamino, aralkylsulfonate ion which may be substituted by C1-20 straight-chain, branched or cyclic alkyl or alkoxy, OH, NO2, halo, halo-substituted alkyl, alkoxycarbonyl, acyl, acylamino or sulfonylamino, camphorsulfonate ion; n = 1-3] that generates a sulfonic acid upon active ray or radiation irradiation and (b) a resin having groups that are decomposed by the action of acid to increase the solubility in alkaline developing solns. The composition using far UV rays shows high photosensitivity and provides a high resolution resist pattern with good profile independent of the elapse of time until baking after exposure.

IT 153698-69-2P 196709-88-3P
(dissoln. inhibitor; pos.-working photoresist composition containing sulfonic acid generator and alkali-soluble resin)

RN 153698-69-2 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-

oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

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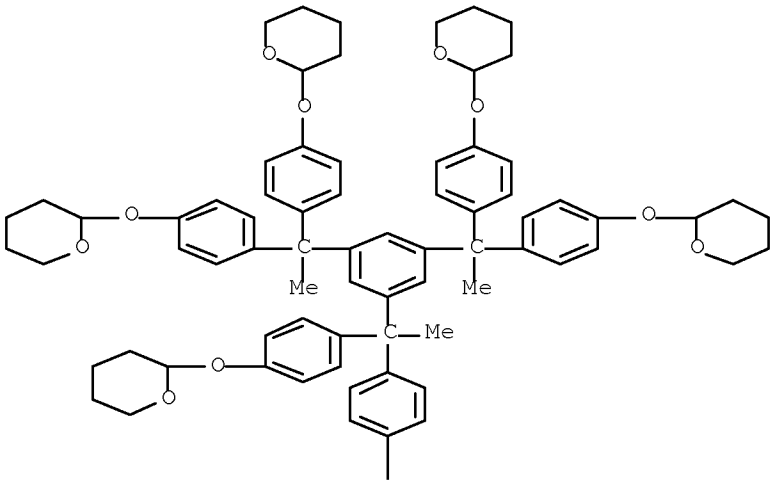

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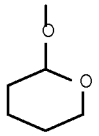


IC ICM G03F007-004

ICS G03F007-004; C08L025-18; G03F007-00; G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic

and Other Reprographic Processes)
ST photoresist sulfonic acid generating agent; alkali soluble compd photoresist; dissoln inhibitor photoresist
IT Positive photoresists
(pos.-working photoresist composition containing sulfonic acid generator and alkali-soluble resin)
IT 153698-63-6P 153698-69-2P 153840-05-2P 196709-88-3P
(dissoln. inhibitor; pos.-working photoresist composition containing sulfonic acid generator and alkali-soluble resin)
IT 109-53-5DP, Iso-butyl vinyl ether, ethers with poly(hydroxystyrene) 109-92-2DP, Ethyl vinyl ether, ethers with poly(hydroxystyrene) 110-87-2DP, 2,3-Dihydro-4H-pyran, ethers with poly(hydroxystyrene) 5292-43-3DP, tert-Butyl bromoacetate, ethers with poly(hydroxystyrene) 24979-70-2DP, VP 8000, ethers 147625-42-1P, Poly(p-hydroxystyrene) p-tert-butoxycarbonate 219553-92-1P
(pos.-working photoresist composition containing sulfonic acid generator and alkali-soluble resin)
IT 219553-95-4 219553-98-7 219554-01-5 219554-04-8 219554-07-1
(pos.-working photoresist composition containing sulfonic acid generator and alkali-soluble resin)

L51 ANSWER 27 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:811786 HCAPLUS Full-text
DOCUMENT NUMBER: 130:102918
TITLE: Positive-working photosensitive composition
INVENTOR(S): Kodama, Kunihiko; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10333326	A	19981218	JP 1997-145437 <--	19970603
JP 3890375	B2	20070307		
PRIORITY APPLN. INFO.:			JP 1997-145437 <--	19970603

OTHER SOURCE(S): MARPAT 130:102918
ED Entered STN: 30 Dec 1998
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title composition contains a compound I [R1-15 = H, halo, OH, acylamino, tert-BuOCO2, arylthio, (substituted) aryl, sulfonylamino, (substituted) aryloxy, straight-chain, branched or cyclic alkoxy, I may link to other sulfonium salt residue by ≥1 of R1-15; X = sulfonium anion II, III, IV (n = 0-10; R16-36 = H, halo, straight-chain, branched or cyclic alkoxy, acyl, acyloxy, formyl, nitro, acylamino, sulfonylamino, aryl, alkoxycarbonyl, I may link to other sulfonium salt residue by ≥1 of R16-36, ≥2 of R16-20, ≥2 of R21-27, and ≥2 of R 28-36 are alkoxy, the sums of C nos. of the substituents of

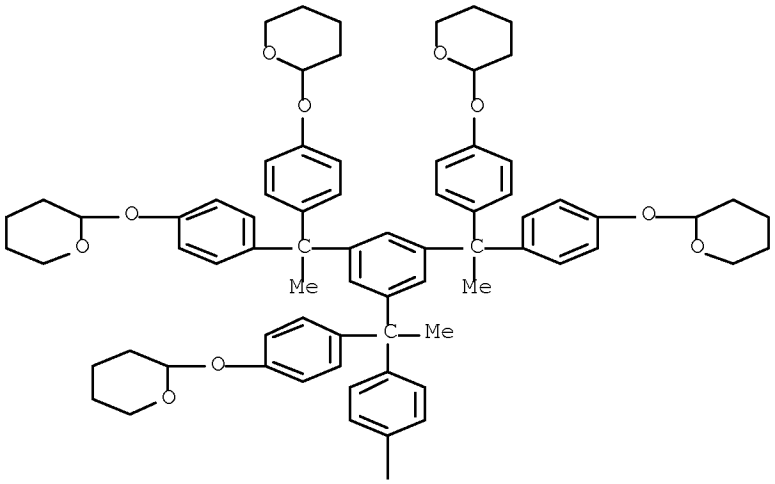
R16-20, R21-27, and R28-36 are ≥4)] that generates a sulfonic acid by active ray or radiation irradiation and a resin having groups that are decomposed by the action of acid to increase the solubility in alkaline developing solns. The composition may contain the acid-generating compound, a dissoln.-inhibiting compound, having mol. weight ≤3000 and an acid-decomposable group, whose solubility in alkaline developing solns. is increased by the action of acid, and a resin insol. in water and soluble in alkaline developing solns. The composition shows high photosensitivity and provides high resolution patterns with good profile independent of the elapse of time from exposure to post-bake.

IT 196709-88-3P
(dissoln. inhibitor; pos. working photoresist containing sulfonic acid-generating agent and alkali-soluble polymer)

RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro-(9CI) (CA INDEX NAME)

PAGE 1-A



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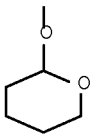


IC ICM G03F007-004
ICS C07C381-12; C08K005-42; C08L025-18; H01L021-027; C08F008-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST pos working photosensitive compn photoresist; sulfonic acid generating agent photoresist; alk development polymer pos

working photoresist
IT Positive photoresists
(pos. working photoresist containing sulfonic acid-generating agent and alkali-soluble polymer)
IT 153698-63-6P 153840-05-2P 177787-06-3P 196709-88-3P
(dissoln. inhibitor; pos. working photoresist containing sulfonic acid-generating agent and alkali-soluble polymer)
IT 104-36-9P, 1,4-Dibutoxybenzene 62774-46-3P
(intermediates; pos. working photoresist containing sulfonic acid-generating agent from)
IT 80-04-6DP, 2,2-Bis(4-hydroxycyclohexyl)propane, reaction product with poly(hydroxystyrene) 109-53-5DP, Isobutyl vinyl ether, reaction product with poly(hydroxystyrene) 109-92-2DP, Ethyl vinyl ether, reaction product with poly(hydroxystyrene) 110-87-2DP, 2,3-Dihydro-4H-pyran, reaction product with poly(hydroxystyrene) 111-34-2DP, Butyl vinyl ether, reaction product with poly(hydroxystyrene) 5292-43-3DP, tert-Butyl bromoacetate, reaction product with poly(hydroxystyrene) 24979-70-2DP, Poly(p-hydroxystyrene), reaction products with vinyl compound or hydroxy compound 34619-03-9DP, Di(tert-butyl) carbonate, reaction product with poly(hydroxystyrene) 219539-17-0P
(pos. working photoresist containing sulfonic acid-generating agent and alkali-soluble polymer)
IT 219539-22-7 219539-27-2 219539-32-9 219539-38-5
(pos. working photoresist containing sulfonic acid-generating agent and alkali-soluble polymer)
IT 123-31-9, 1,4-Benzenediol, reactions 542-69-8, Butyl iodide 4270-70-6, Triphenylsulfonium chloride 7790-94-5, Chlorosulfonic acid
(pos. working photoresist containing sulfonic acid-generating agent from)
IT 110-87-2, 3,4-Dihydro-2H-pyran 24424-99-5, Di(tert-butyl) dicarbonate 76937-83-2 148452-55-5, 1,3,3,5-Tetrakis(4-hydroxyphenyl)pentane 153698-47-6, Cumyl bromoacetate 219539-54-5
(pos. working photoresist containing sulfonic acid-generating agent, alkali-soluble polymer, and dissoln. inhibitor from)

L51 ANSWER 28 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:621383 HCAPLUS Full-text
DOCUMENT NUMBER: 129:267912
ORIGINAL REFERENCE NO.: 129:54483a,54486a
TITLE: Photosensitive quinolone compounds and process of their preparation
INVENTOR(S): Oberlander, Joseph E.; Durham, Dana L.; Khanna, Dinesh N.
PATENT ASSIGNEE(S): Clariant International, Switz.
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

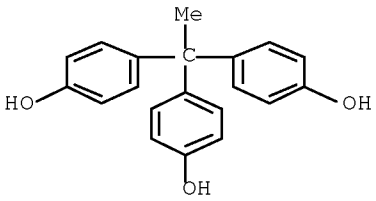
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840790	A1	19980917	WO 1998-EP1082 <--	19980226

W: CN, JP, KR, SG
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE

US 5866295	A	19990202	US 1997-813167 <--	19970307
EP 965068	A1	19991222	EP 1998-908113 <--	19980226
R: BE, DE, FR, GB, IT, NL				
JP 2002501485	T	20020115	JP 1998-539132 <--	19980226
PRIORITY APPLN. INFO.:			US 1997-813167 <--	A 19970307
			WO 1998-EP1082 <--	W 19980226

OTHER SOURCE(S): MARPAT 129:267912
ED Entered STN: 01 Oct 1998
AB The present invention relates to novel photosensitive quinolone compds., specifically novel 3-diazo-2,4-quinolinedione compds., that may be used in a variety of applications, such as, photosensitive coating compns., pharmaceuticals, agricultural, amongst others. The invention further relates to a process for making the novel photosensitive 3-diazo-2,4-quinolinedione compds. These compds. are particularly useful as photoactive components in pos.-working photoresists, particularly for use as deep-UV photoresists.
IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(reaction in preparing photosensitive diazoquinolinedione compound)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-022
ICS C07D215-38
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 63
ST diazoquinolinedione compd pos photoresist
IT Photoimaging materials
Photoresists
(UV, pos.; photosensitive diazoquinolinedione compds. for)
IT 121-44-8, reactions 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 7790-94-5, Chlorosulfuric acid 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane 213330-45-1
(reaction in preparing photosensitive diazoquinolinedione compound)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

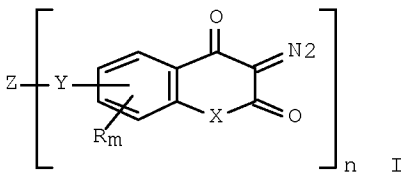
L51 ANSWER 29 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:621382 HCAPLUS Full-text
DOCUMENT NUMBER: 129:267911
ORIGINAL REFERENCE NO.: 129:54483a,54486a

TITLE: Positive photoresist containing novel photoactive compound
INVENTOR(S): Durham, Dana L.; Lu, Ping-hung; Oberlander, Joseph E.; Khanna, Dinesh N.
PATENT ASSIGNEE(S): Clariant International Ltd., Switz.
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840789	A1	19980917	WO 1998-EP1083 <--	19980226
W: CN, JP, KR, SG				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5876897	A	19990302	US 1997-812542 <--	19970307
EP 965067	A1	19991222	EP 1998-912397 <--	19980226
EP 965067	B1	20040929		
R: BE, DE, FR, GB, IT, NL				
JP 2001515606	T	20010918	JP 1998-539133 <--	19980226
TW 509822	B	20021111	TW 1998-87103675 <--	19980312

PRIORITY APPLN. INFO.: US 1997-812542 A 19970307 <--
WO 1998-EP1083 W 19980226 <--

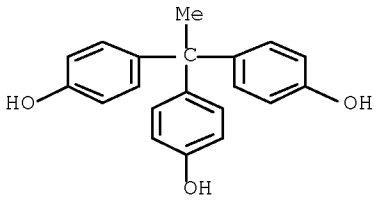
OTHER SOURCE(S): MARPAT 129:267911
ED Entered STN: 01 Oct 1998
GI



I

AB A pos. deep-UV photoresist comprises an alkali-soluble resin, a novel photoactive compound represented by structure I where X is O, S, or N-R1 where R1 is H, alkyl, substituted alkyl, aryl, or aralkyl; Y is a connecting group such as SO2, CO, O, or NR1; Z is a carbon-containing organic ballast moiety having a mol. weight greater than about 75 and can form a bond with the connecting group; R is independently H, alkyl, alkoxy, aryl, aralkyl, halo, or fluoroalkyl; m = 1-3; and n ≥1, and a solvent or mixture of solvents. The invention further comprises a process for imaging the composition of this invention to give a pos. image.
IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane

(reaction in preparing photoactive compound for pos. deep-UV photoresists)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



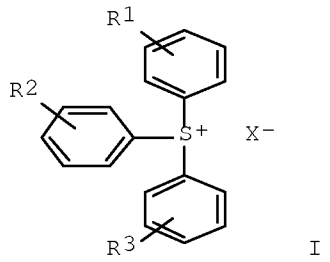
IC ICM G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos UV photoresist photoactive quinolone compd
IT Positive photoresists
(deep-UV; photoactive quinolone compds. for)
IT 133685-94-6, 2-Hydroxystyrene-4-hydroxystyrene copolymer
(pos. deep-UV photoresists containing quinolone compds. and)
IT 941-55-9P, Tosyl azide 5186-54-9P 206049-62-9P 213330-46-2P 213330-47-3P
(preparation and reaction in preparing photoactive compound for pos. deep-UV photoresists)
IT 206049-63-0P 206049-65-2P 206049-66-3P 206049-71-0P 213332-32-2P 213332-33-3P
(preparation and use as photoactive compound for pos. deep-UV photoresists)
IT 80-05-7, reactions 98-59-9, Tosyl chloride 121-44-8, reactions 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 611-99-4, 4,4'-Dihydroxybenzophenone 1076-38-6, 4-Hydroxycoumarin 1143-72-2, 2,3,4-Trihydroxybenzophenone 7790-94-5, Chlorosulfuric acid 26628-22-8, Sodium azide 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane 200137-29-7
(reaction in preparing photoactive compound for pos. deep-UV photoresists)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 30 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:512684 HCAPLUS Full-text
DOCUMENT NUMBER: 129:223249
ORIGINAL REFERENCE NO.: 129:45255a,45258a
TITLE: Coated product using positive-working photosensitive composition and patterning using same
INVENTOR(S): Uenishi, Kazuya; Aogo, Toshiaki; Mizutani, Kazuyoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10213904	A	19980811	JP 1997-18916 <--	19970131
PRIORITY APPLN. INFO.:			JP 1997-18916 <--	19970131

OTHER SOURCE(S): MARPAT 129:223249
ED Entered STN: 18 Aug 1998
GI



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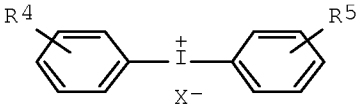
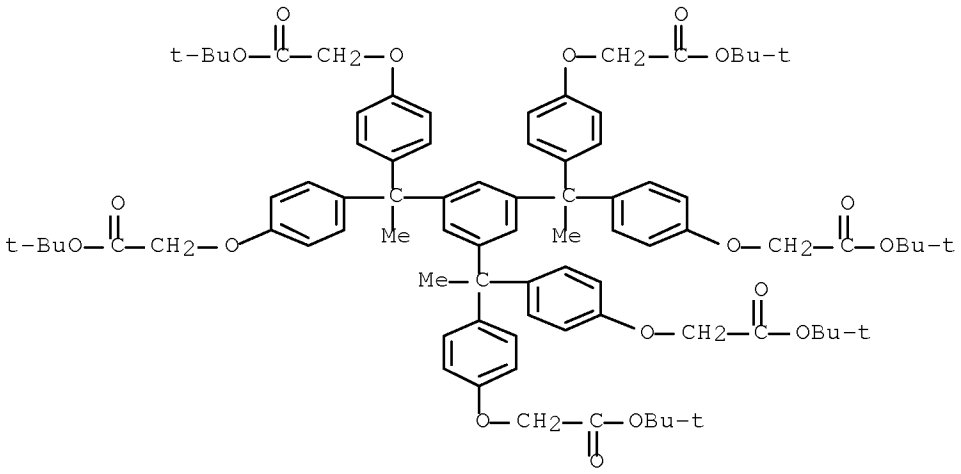


II

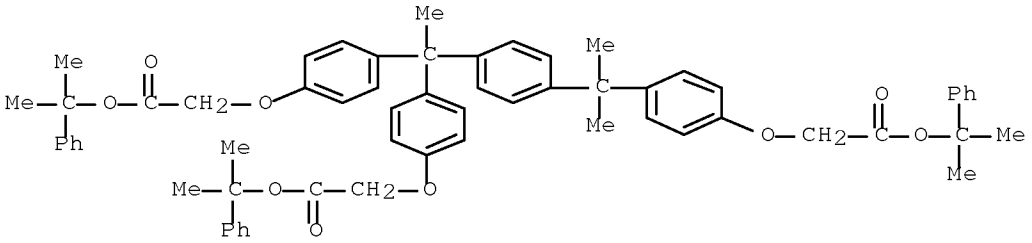
AB The coated product comprises a substrate coated with an antireflection layer and then with a pos.-working resist composition layer containing a compound generating a sulfonic acid upon active ray or irradiation I or II (R1-5 = H, alkyl, cycloalkyl, alkoxy, OH, halo, SR6 (R6 = alkyl or aryl); X- = anion of benzenesulfonic, naphthalenesulfonic or anthracenesulfonic acids having ≥3 C1 substituents or substituents in which the total C number is ≥4) and a resin that is decomposed by the action of acid to increase the solubility in alkaline developing solution The product is patternwise exposed and developed to form a pattern. A high resolution resist pattern with good profile is obtained.

IT 153698-65-8P 153698-69-2P
(dissoln. inhibitor; photoresist composition containing sulfonic acid generating agent and alkali-soluble resin)

RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



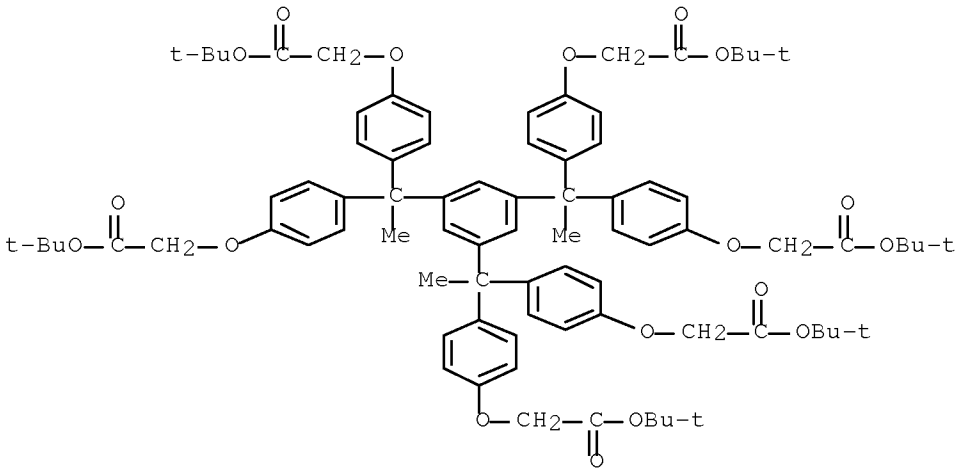
IC ICM G03F007-039
ICS C09D005-00; G03F007-004; G03F007-033; G03F007-11; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST photoresist sulfonic acid generator; alkali soluble polymer polyhydroxystyrene photoresist; dissoln inhibitor phenolic compd photoresist
IT Polyesters, preparation
(antireflection layer; photoresist composition containing sulfonic acid generating agent and alkali-soluble resin)
IT Positive photoresists
(photoresist composition containing sulfonic acid generating agent and alkali-soluble resin)
IT 209848-19-1P 209848-21-5P 209848-23-7P 209848-26-0P
209848-27-1P 209848-28-2P 212397-14-3P 212397-18-7P
(antireflection layer; photoresist composition containing sulfonic acid generating agent and alkali-soluble resin)
IT 153698-58-9P 153698-65-6P 153698-68-1P
153698-69-2P 153698-70-5P 153840-05-2P 159293-87-5P
(dissoln. inhibitor; photoresist composition containing sulfonic

acid generating agent and alkali-soluble resin)
IT 80-04-6DP, 2,2-Bis(4-hydroxycyclohexyl)propane, reaction products with poly(hydroxystyrene) 109-53-5DP, Iso-Butyl vinyl ether, ethers with poly(hydroxyphenylstyrene) 109-92-2DP, ethers with poly(hydroxyphenylstyrene) 926-02-3DP, tert-Butyl vinyl ether, reaction products with poly(hydroxystyrene) 24979-70-2DP, Poly(p-hydroxystyrene), reaction products with tert-Bu vinyl ether and bis(hydroxycyclohexyl)propane 197447-19-1P 197595-16-7P 197595-32-7P 197667-05-3P 207464-07-1P 207464-08-2P
(photoresist composition containing sulfonic acid generating agent and alkali-soluble resin)
IT 125325-82-8, p-Hydroxystyrene-p-(2-tetrahydropyranyloxy)styrene copolymer 142952-62-3, tert-Butoxycarbonylmethyloxystyrene-p-hydroxystyrene copolymer 158593-28-3, p-(1-Ethoxyethoxystyrene)-p-hydroxystyrene copolymer 196709-91-8, p-(1-tert-Butoxyethoxy)styrene-p-hydroxystyrene copolymer 197447-11-3 197595-14-5 197595-29-2 197595-30-5 197667-06-4
(photoresist composition containing sulfonic acid generating agent and alkali-soluble resin)

L51 ANSWER 31 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:457364 HCAPLUS Full-text
DOCUMENT NUMBER: 129:168106
ORIGINAL REFERENCE NO.: 129:34043a,34046a
TITLE: Positively photosensitive composition with improved sensitivity and resolution
INVENTOR(S): Fujinomori, Susumu; Aogo, Toshiaki; Tan, Shiro; Uenishi, Ichiya
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10186662	A	19980714	JP 1996-341792 <--	19961220
JP 3638068	B2	20050413		
PRIORITY APPLN. INFO.:			JP 1996-341792 <--	19961220

ED Entered STN: 23 Jul 1998
AB The composition contains (A) an acid-generating compound by active ray or radiation, (B) a polymer obtained by treating a raw material containing a phenol-based polymer with H2O content ≤1.7% and protecting OH groups with a group which is decomposed by an acid and increases solubility for an alkali developer, and optionally (C) a low-mol.-weight dissoln. inhibitor (mol. weight ≤3000), having a group decomposable by an acid, whose solubility for an alkali developer increases by an acid. The composition showed improved sensitivity and resolution
IT 153698-65-8P
(dissoln. inhibitor; pos. photosensitive composition containing phenol-based
polymer with improved sensitivity and resolution)
RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-039
ICS G03F007-00; G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST phenol polymer pos photoresist water control; polyhydroxystyrene pos resist sensitivity improvement; alkali developable photoresist phenol polymer
IT Positive photoresists
(pos. photosensitive composition containing phenol-based polymer with improved sensitivity and resolution)
IT 153698-58-9P 153698-63-6P 153698-65-8P 153698-68-1P
153840-05-2P
(dissoln. inhibitor; pos. photosensitive composition containing phenol-based
polymer with improved sensitivity and resolution)

L51 ANSWER 32 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:430709 HCAPLUS Full-text
DOCUMENT NUMBER: 129:154700
ORIGINAL REFERENCE NO.: 129:31389a,31392a
TITLE: Acetal-substituted aromatic hydroxy compound and negative-working photoresist composition containing it
INVENTOR(S): Park, Jo-Hyun; Kim, Seon-Jyu; Kim, Ji-Hong; Park, Sun-I.
PATENT ASSIGNEE(S): Kumho Petrochemicals Co., S. Korea
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

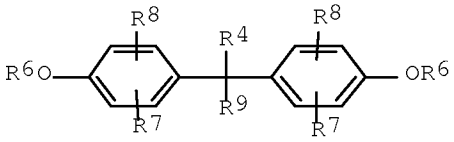
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10182537	A	19980707	JP 1997-254773 <--	19970919
JP 2875239	B2	19990331		

KR 219303	B1	19990901	KR 1996-41436 <--	19960921
US 5916995	A	19990629	US 1997-932358 <--	19970917

PRIORITY APPLN. INFO.: KR 1996-41436 A 19960921 <--

ED Entered STN: 13 Jul 1998

GI



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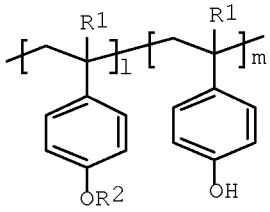
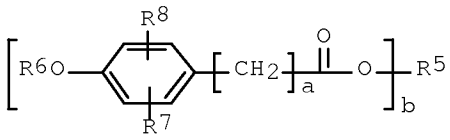
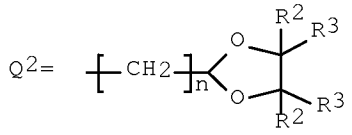
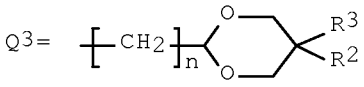




II III



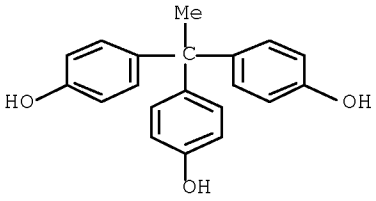


AB The compound is I or II [a = 0-5; b = 2-4; R7-8 = H, alkyl, alkoxy, Ph, halo; R4, R9 = H, alkyl, Ph; R5 = C, (hydroxy) alkyl, (phenyl-substituted) alkyl; ≥1 of R6 = (CH2)n(OR1)2, Q2-3; n = 1-6; R1 = alkyl, Ph, benzyl; R2-3 = H, alkyl, Ph, benzyl]. A polymer with repeating unit III (l + m = 1; R1 = H, Me; R2 = same as R6) is also claimed. The photoresist composition comprises an acid generator, an alkali-soluble resin, and the acetal-substituted aromatic hydroxy compound The composition comprises an acid generator and the polymer. The composition transmits far UV and excimer laser beam, shows good heat resistance and storage stability, and gives resist patterns with good dimensional stability.

IT 27955-94-8, Tris(4-hydroxyphenyl)ethane
(preparation of acetal-substituted aromatic hydroxy compound)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM C07C043-303
ICS C07C069-734; C07C069-92; C07C069-94; C08F008-00; C08F012-22; C08L025-18; C08L061-06; G03F007-004; G03F007-023; G03F007-038; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 38
ST acetal hydroxy arom compd photoresist; neg working photoresist acid generator; polyhydroxystyrene acetal group photoresist
IT Negative photoresists
(neg.-working photoresist composition containing acetal-substituted aromatic hydroxy compound)
IT 39153-56-5, Bis(2,4-dimethylphenylsulfonyl)diazomethane 66003-78-9, Triphenylsulfonium triflate 81416-37-7 84563-54-2, Bis(p-tert-butylphenyl)iodonium triflate 116808-67-4 126615-05-2, Pyrogallol trimesylate 138529-81-4, Bis(cyclohexylsulfonyl)diazomethane 145612-66-4
(acid generator; neg.-working photoresist composition containing acetal-substituted aromatic hydroxy compound)
IT 33884-43-4DP, 2-(2-Bromoethyl)-1,3-dioxane, ethers with poly(hydroxystyrene) 59269-51-1DP, Poly(hydroxystyrene), ethers with acetals 210751-04-5P 210751-05-6P 210751-06-7P 210751-07-8P
(neg.-working photoresist composition containing acetal-substituted aromatic hydroxy compound)
IT 146368-31-2
(neg.-working photoresist composition containing acetal-substituted aromatic hydroxy compound)
IT 80-05-7, reactions 27955-94-8, Tris(4-hydroxyphenyl)ethane 33884-43-4
(preparation of acetal-substituted aromatic hydroxy compound)

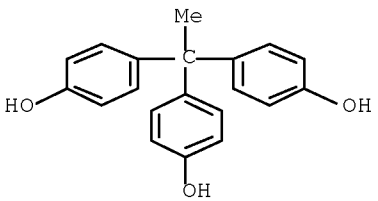
L51 ANSWER 33 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:430097 HCAPLUS Full-text
DOCUMENT NUMBER: 129:115618
ORIGINAL REFERENCE NO.: 129:23577a,23580a
TITLE: Process for preparing coumarin sulfonates for photoresists
INVENTOR(S): Aslam, Mohammad; Sheehan, Michael T.; Kvakovszky, George
PATENT ASSIGNEE(S): Hoechst Celanese Corp., USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5773591	A	19980630	US 1997-813106 <--	19970307
WO 9839318	A1	19980911	WO 1998-US3448 <--	19980223

W: CN, JP, KR, SG
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 980364	A1	20000223	EP 1998-908652 <--		19980223
EP 980364	B1	20030702			
R: BE, DE, FR, GB, IT, NL					
JP 2001513086	T	20010828	JP 1998-537050 <--		19980223
CN 1124271	C	20031015	CN 1998-803014 <--		19980223
TW 518332	B	20030121	TW 1998-87102889 <--		19980227
PRIORITY APPLN. INFO.:			US 1997-813106 <--	A	19970307
			WO 1998-US3448 <--	W	19980223

OTHER SOURCE(S): MARPAT 129:115618
ED Entered STN: 13 Jul 1998
AB A novel process for preparing sulfonic acid esters and amides of benzo-heterocyclic diazo diketo compds., such as substituted diazo-4-oxo-3,4-dihydrocoumarins, which are useful synthetic intermediates in a wide variety of applications including photoresists, optoelectronics, agricultural, and pharmaceutical applications is disclosed and claimed. The process comprises the steps of (a) subjecting a substituted benzo-heterocyclic β-keto-enol compound to suitable diazo transfer conditions in the presence of a diazo transfer agent, (b) subjecting the so- formed diazo diketo compound to suitable halosulfonation conditions in the presence of a halosulfonation agent, and (c) subjecting the so-formed halosulfonyl aromatic compound to suitable substitution reaction in the presence of an alc. or an amine to form the corresponding sulfonic acid ester or amide of benzo-heterocyclic diazo diketo compound The compds. formed from the process of the present invention exhibit very high photosensitivity in the deep UV (DUV) region (ca. 250 nm), and therefore, are useful as photoactive compds. in DUV photoresist formulations.
IT 27955-94-8
(reaction in synthesis of coumarin sulfonates for use in deep-UV photoresists)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM C07D311-20
ICS C07D335-06
INCL 534557000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 27, 63, 76
ST coumarin sulfonate synthesis deep UV photoresist
IT Photoresists
(deep-UV; synthesis of coumarin sulfonates for use in)

IT 121-44-8, reactions 611-99-4, 4,4'-Dihydroxybenzophenone 941-55-9, p-Toluenesulfonyl azide 1076-38-6, 4-Hydroxycoumarin 1143-72-2, 2,3,4-Trihydroxybenzophenone 7790-94-5, Chlorosulfuric acid 24979-70-2, Poly(4-hydroxystyrene) 27955-94-8
(reaction in synthesis of coumarin sulfonates for use in deep-UV photoresists)

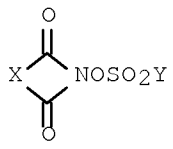
IT 5186-54-9P, 3-Diazo-4-oxo-3,4-dihydrocoumarin 206049-62-9P 206049-63-0P 206049-65-2P 206049-66-3P 206049-67-4P 209862-27-1P 209862-28-2P 209920-84-3P, Poly(4-hydroxystyrene)-3-diazo-4-oxo-3,4-dihydrocoumarin-6-sulfonate
(synthesis and use in deep-UV photoresists)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 34 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:335136 HCAPLUS Full-text
DOCUMENT NUMBER: 129:60586
ORIGINAL REFERENCE NO.: 129:12441a,12444a
TITLE: Positive-working photosensitive composition
INVENTOR(S): Kodama, Kunihiko; Seigo, Toshiaki; Uenishi, Kazuya
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10133378	A	19980522	JP 1996-292715 <--	19961105
PRIORITY APPLN. INFO.:			JP 1996-292715 <--	19961105

ED Entered STN: 04 Jun 1998
GI



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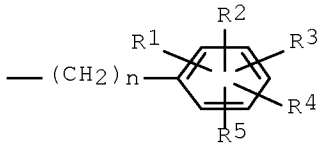
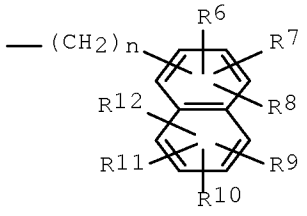
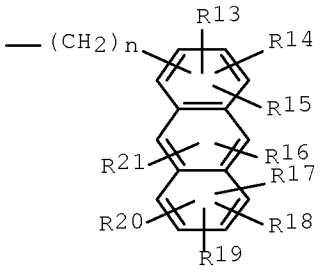


II



III



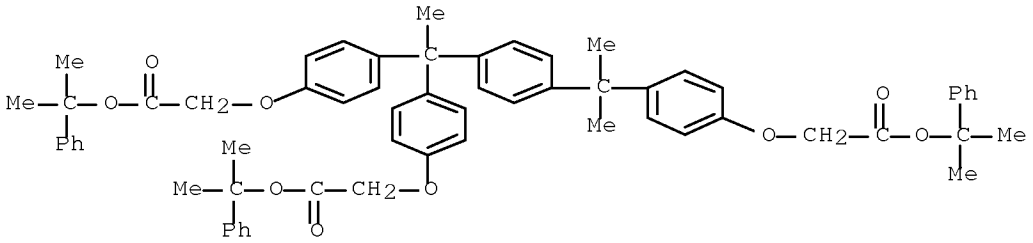
IV

AB The title composition contains an imido sulfonate compound, that generates sulfonic acid upon active ray irradiation, I [Y = II, III, IV; n = 0-10; R1-21 = H, straight-chain, branched or cyclic alkyl, halo, perfluoroalkyl, alkoxy, acyl, acyloxy, formyl, nitro, acylamino, sulfonylamino, aryl, alkoxycarbonyl (these groups may link to other sulfonyloxyimido residue), ≥1 of R1-5, R6-12, and R13-21 is an alkoxy group and the sum of C nos. of each substituent of R1-5, R6-12, and R13-21 is ≥2; X = (substituted) alkylene which may contain hetero atoms, (substituted) monocyclic or polycyclic cycloalkylene, (substituted) arylene, (substituted) alkenylene (these groups may link to other sulfonyloxyimido residue)] and a resin having groups that are decomposed by the action of acid to increase the solubility in alkaline developing solns. The composition may contain the acid-generating agent I, a dissoln.-inhibiting compound with mol. weight ≤3000 which has acid-decomposable groups and of which the solubility in alkaline developing solns. is increased by the action of acid, and a resin insol. in water and soluble in alkaline developing solns. The composition shows high photosensitivity and provides high resolution resist patterns with good profile independent of the elapse of time from exposure to bake.

IT 153698-69-2P 196709-88-3P
(dissoln. inhibitor; photoresist composition containing imido sulfonate compound and alkali-soluble resin)

RN 153698-69-2 HCAPLUS

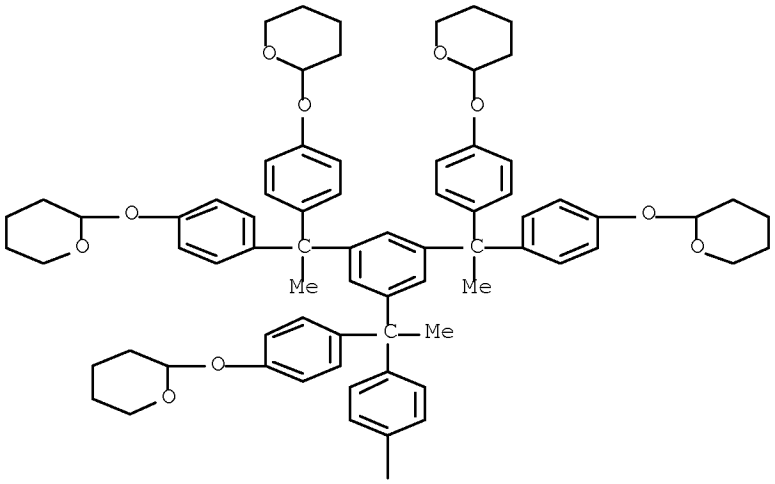
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



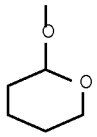
RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM G03F007-039
ICS G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Positive photoresists
(photoresist composition containing imido sulfonate compound and alkali-soluble resin)
IT 153698-63-6P 153698-69-2P 196709-88-3P
208581-77-5P
(dissoln. inhibitor; photoresist composition containing imido sulfonate compound and alkali-soluble resin)
IT 109-53-5DP, Iso-butyl vinyl ether, ethers with poly(hydroxystyrene)
110-87-2DP, 2,3-Dihydro-4H-pyran, ethers with poly(hydroxystyrene)
926-02-3DP, tert-Butyl vinyl ether, ethers with poly(hydroxystyrene)
5292-43-3DP, tert-Butyl bromoacetate, ethers with poly(hydroxystyrene)
24979-70-2DP, Poly(p-hydroxystyrene), ethers 208581-65-1P
208581-67-3P
(photoresist composition containing imido sulfonate compound and alkali-soluble resin)
IT 208581-69-5 208581-71-9 208581-73-1 208581-75-3
(photoresist composition containing imido sulfonate compound and alkali-soluble resin)

L51 ANSWER 35 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:231236 HCAPLUS Full-text

DOCUMENT NUMBER: 128:328771
ORIGINAL REFERENCE NO.: 128:65051a,65054a
TITLE: Positive-type photoresist compositions
INVENTOR(S): Uenishi, Kazuya; Sakaguchi, Shinji; Fujinomori, Akira
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10097075	A	19980414	JP 1997-125686 <--	19970515
TW 505827	B	20021011	TW 1997-86107682 <--	19970604

PRIORITY APPLN. INFO.: JP 1996-146180 A 19960607 <--

ED Entered STN: 24 Apr 1998
GI

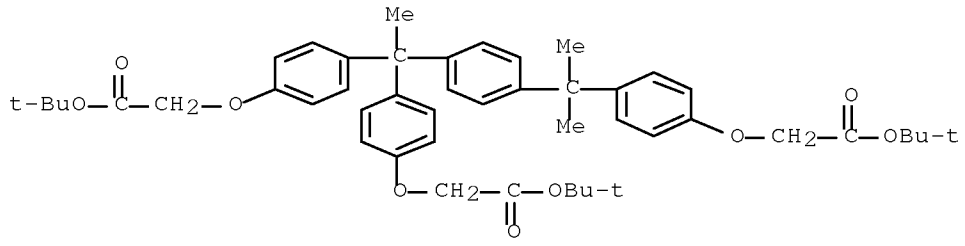
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compns. comprise (A) CH2:C(Rx)C6H4OH copolymer with CH2:C(Rx)C6H4OC(Ra)(Rb)ORc and/or the copolymers containing -C(Rd)(Re)ORfOC(Rg)(Rh)- crosslinking groups, (B) compds. generating acids upon irradiation of active light or radiation, and (C) I or II, wherein Rx = H, Me; Ra, Rb, Rd, Re, Rg, Rh = H, C1-8 alkyl, C3-6 cycloalkyl; Rc = C1-8 alkyl, C3-6 cycloalkyl, Q1; Rf = C1-6 alkylene, C3-6 cycloalkylene, Q2; Ri, Rj = H, C1-6 alkyl, C3-6 cycloalkylene; l + m = 100; m/(l + m) = 0.05-0.90; A = H, OH; E, G = Q3; R1-4 = H, XR13, halogen; R5, R6 = H, Me, Et, C1-2 haloalkyl; a-f, k-n = 0-3; g-j = 0-2; p = 1-3; D = direct bond, CO, S, SO2, CR5R6, -C(R5)(R6)C6H4C(R5)(R6)-; R8-12 = H, OH, CN, CO2H, XR13; R13 = C1-8 alkyl; X = direct bond, O, S, CO, O2C.

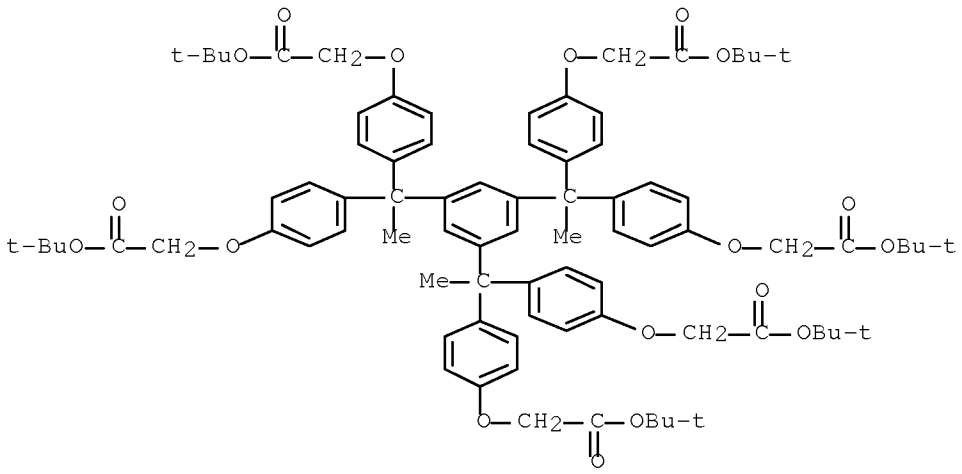
IT 153698-54-5P 153698-65-8P
(pos.-type photoresist compns.)

RN 153698-54-5 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-[4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-1-methylethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, 1,1'-bis(1,1-dimethylethyl) ester (CA INDEX NAME)



RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-039
ICS G03F007-004; H01L021-027; H05K003-06; C08F012-22; C08L025-18
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
ST photoresist pos type styrene deriv polymer
IT Photoresists
(pos.-type photoresist compns.)
IT 19361-97-8 31796-20-0 41580-58-9 56530-39-3 66003-78-9
142096-70-6 153698-46-5 153698-67-0 177786-97-9 199432-75-2
206861-49-6 206861-50-9 206861-52-1 206861-53-2 206861-54-3
(pos.-type photoresist compns.)
IT 153698-54-5P 153698-63-6P 153698-65-8P
189103-11-5P 189103-13-7P 189103-14-8P 189103-15-9P
206861-55-4P
(pos.-type photoresist compns.)
IT 107375-96-2P 110726-28-8P 110726-30-2P 110726-34-6P
113629-59-7P 147079-30-9P 147079-31-0P 147079-32-1P
147079-33-2P 147079-34-3P 147079-35-4P 147079-36-5P
(pos.-type photoresist compns.)
IT 24979-70-2, Poly(4-hydroxystyrene) 24979-74-6,
p-Hydroxystyrene-styrene copolymer 87188-51-0 125325-82-8
133685-94-6, o-Hydroxystyrene-p-hydroxystyrene copolymer
142952-62-3, p-(tert-Butoxycarbonylmethoxy)styrene-p-hydroxystyrene copolymer 158593-28-3 171429-59-7,
p-Acetoxystyrene-p-hydroxystyrene copolymer 196709-91-8
199432-81-0 206861-57-6 206861-58-7 206861-60-1 206861-61-2
206861-62-3
(pos.-type photoresist compns.)
IT 50-00-0, Formaldehyde, reactions 80-05-7, Bisphenol A, reactions
80-09-1, Bisphenol S 95-48-7, o-Cresol, reactions 108-39-4,
reactions 108-95-2, Phenol, reactions 110-87-2,
3,4-Dihydro-2H-pyran 131-55-5, 2,2',4,4'-Tetrahydroxybenzophenone

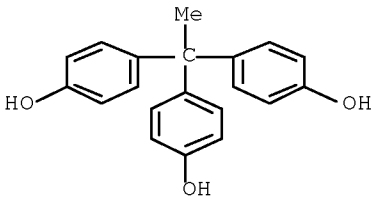
576-26-1, 2,6-Dimethylphenol 611-99-4, 4,4'-Dihydroxybenzophenone 623-05-2, 4-Hydroxymethylphenol 3957-22-0 4397-14-2, 4-Hydroxymethyl-2,6-dimethylphenol 4466-18-6, α,α',α''-Tris(4-hydroxyphenyl)-1,3,5-triisopropylbenzene 5292-43-3, tert-Butyl bromoacetate 5359-04-6, p-Isopropenylacetophenone 24424-99-5, Di-tert-butyl dicarbonate 76937-83-2, α,α,α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 87771-42-4, Ethanone, 1-[3-(1-methylethenyl)phenyl]- 148452-55-5 153698-47-6, Cumyl bromoacetate
(pos.-type photoresist compns.)

L51 ANSWER 36 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:226844 HCAPLUS Full-text
DOCUMENT NUMBER: 128:302111
ORIGINAL REFERENCE NO.: 128:59728h,59729a
TITLE: Photoactive coumarin sulfonate compounds
INVENTOR(S): Aslam, Mohammad; Sheehan, Michael T.; Kvakovszky, George; Davenport, Kenneth G.; Gordon, Douglas J.
PATENT ASSIGNEE(S): Hoechst Celanese Corp., USA
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5739295	A	19980414	US 1997-813099 <--	19970307
WO 9839320	A1	19980911	WO 1998-US3425 <--	19980223
W: CN, JP, KR, SG				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 968203	A1	20000105	EP 1998-906629 <--	19980223
EP 968203	B1	20030611		
R: BE, DE, FR, GB, IT, NL				
JP 2001515476	T	20010918	JP 1998-537982 <--	19980223
TW 538042	B	20030621	TW 1998-87103231 <--	19980305
PRIORITY APPLN. INFO.:			US 1997-813099 A <--	19970307
			WO 1998-US3425 W <--	19980223

OTHER SOURCE(S): MARPAT 128:302111
ED Entered STN: 22 Apr 1998
AB A new class of 3-diazo-3,4-dihydrocoumarin compds. which are useful as photoactive compds. in a wide variety of applications including photoresists and other optoelectronic applications are disclosed and claimed. Preferred embodiments include 6-sulfonyl-3-diazo-4-oxo-3,4-dihydrocoumarin esters. These compds. exhibit very high photosensitivity in the deep-UV region (ca. 250 nm) and, therefore, are useful as photoactive compds. in deep-UV photoresists.
IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(reaction in preparing photoactive diazodihydrocoumarin compds. for photoresists)

RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM C07D311-20
ICS C07D335-06
INCL 534557000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 27
ST photoresist UV photoactive sulfonyldiazooxodihydrocoumarin ester
IT Photoimaging materials
Photoresists
(deep-UV; photoactive sulfonyldiazooxodihydrocoumarin esters for)
IT 5186-54-9P 206049-62-9P
(preparation and reaction in preparing photoactive diazodihydrocoumarin compds. for photoresists)
IT 206049-63-0P 206049-64-1P 206049-65-2P 206049-66-3P
206049-67-4P 206049-68-5P 206049-69-6P 206049-71-0P
206049-72-1P
(preparation and use as photoactive compound for photoresists)
IT 80-05-7, reactions 611-99-4, 4,4'-Dihydroxybenzophenone 941-55-9, p-Toluenesulfonyl azide 1076-38-6, 4-Hydroxycoumarin 1143-72-2, 2,3,4-Trihydroxybenzophenone 7790-94-5, Chlorosulfonic acid 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(reaction in preparing photoactive diazodihydrocoumarin compds. for photoresists)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 37 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:204521 HCAPLUS Full-text
DOCUMENT NUMBER: 128:277100
ORIGINAL REFERENCE NO.: 128:54727a,54730a
TITLE: Positive photoresist composition
INVENTOR(S): Sato, Kenichiro; Kodama, Kunihiko; Uenishi, Kazuya; Aoai, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 86 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 831369	A2	19980325	EP 1997-116374 <--	19970919
EP 831369	A3	19980819		
EP 831369	B1	20030102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 10097060	A	19980414	JP 1996-250518 <--	19960920
JP 3679205	B2	20050803		
US 5981140	A	19991109	US 1997-932168 <--	19970917
TW 482945	B	20020411	TW 1997-86113455 <--	19970917

PRIORITY APPLN. INFO.: JP 1996-250518 A 19960920 <--

OTHER SOURCE(S): MARPAT 128:277100
ED Entered STN: 10 Apr 1998
GI

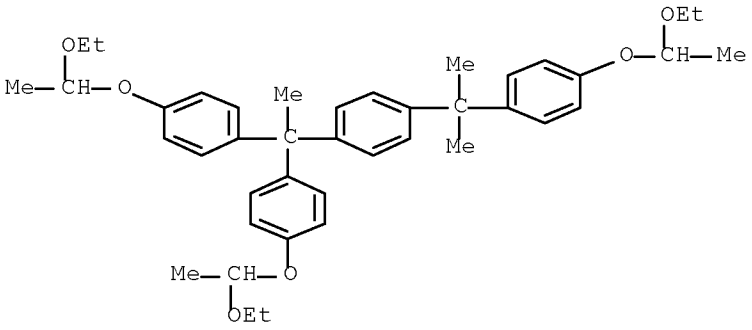
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A pos. photoresist composition comprises a compound represented by formula I or II (R1-5 = H, alkyl, cycloalkyl, alkoxy, hydroxy, halogen, or SR12 where R12 = alkyl or aryl; R6-8 = H, alkyl, cycloalkyl, alkenyl, CO2R13, or OCOR14 where R13, R14 = alkyl or alkenyl) and a compound represented by formula III (C1, C2 = a C atom bonded to each other through a single or double bond; R9, R10 = H, alkyl, cycloalkyl, or aryl with the proviso that R9 and R10 in combination with C1 and C2 may form a a mono- or polycyclic group, R9 and R10 may form a fused ring containing C1 and C2, or ≥1 of R9 and R10 represents a residue containing an N-sulfonyloxyimido group; R11 = alkyl, halogenated alkyl, cycloalkyl, alkenyl, aryl, aralkyl, or a camphor group) as compds. which generate a sulfonic acid upon irradiation with actinic rays or radiation. The pos. photoresist composition has high sensitivity and high resolving power, undergoes neither a decrease in resist pattern line width nor the formation of a T-top resist pattern surface with the lapse of time from exposure to heat treatment, and exhibits less profile deterioration such as residual standing wave and collapse.

IT 202396-81-4P
(preparation and use as dissoln. inhibition compound for pos. photoresists)

RN 202396-81-4 HCAPLUS

CN Benzene, 1-[1,1-bis[4-(1-ethoxyethoxy)phenyl]ethyl]-4-[1-[4-(1-ethoxyethoxy)phenyl]-1-methylethyl]- (CA INDEX NAME)



IC ICM G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos photoresist photosensitive sulfonic acid generator
IT Positive photoresists
(containing acid-decomposable resins and compds. for photochem. generating sulfonic acids)
IT 24979-70-2DP, Poly(p-hydroxystyrene), tert-butoxyethylated
(preparation and use as acid-decomposable resin in pos. photoresists)
IT 153698-68-1P 202396-81-4P
(preparation and use as dissoln. inhibition compound for pos. photoresists)
IT 56530-39-3P 197447-16-8P 205652-28-4P 205652-30-8P
205652-32-0P 205682-99-1P 205683-01-8P
(preparation and use as photochem. sulfonic acid generator for pos. photoresists)
IT 926-02-3, tert-Butyl vinyl ether 24979-70-2, Poly(p-hydroxystyrene)
(reaction in preparing acid-decomposable resin for pos. photoresists)
IT 110-87-2, 3,4-Dihydro-2H-pyran 4466-18-6,
α,α',α''-Tris(4-hydroxyphenyl)-1,3,5-triisopropylbenzene 110726-28-8,
1-[α-Methyl-α-(4'-hydroxyphenyl)ethyl]-4-[α',α'-bis(4''-hydroxyphenyl)ethyl]benzene 153698-47-6,
Cumyl bromoacetate
(reaction in preparing dissoln. inhibition compound for pos. photoresists)
IT 98-59-9, p-Toluenesulfonyl chloride 98-68-0,
p-Methoxybenzenesulfonyl chloride 121-44-8, reactions 524-38-9,
N-Hydroxyphthalimide 616-02-4, Methylmaleic anhydride 773-64-8,
2-Mesitylenesulfonyl chloride 4270-70-6, Triphenylsulfonium chloride
5470-11-1, Hydroxylamine hydrochloride 19028-28-5 25155-30-0,
Sodium dodecylbenzenesulfonate 53176-11-7,
Triisopropylbenzenesulfonyl chloride 201042-68-4
(reaction in preparation of photochem. sulfonic acid generator for pos. photoresists)

L51 ANSWER 38 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:184469 HCAPLUS Full-text
DOCUMENT NUMBER: 128:263955
ORIGINAL REFERENCE NO.: 128:52117a,52120a
TITLE: Photosensitive compositions useful as positive-working resists

INVENTOR(S): Fujimori, Toru; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

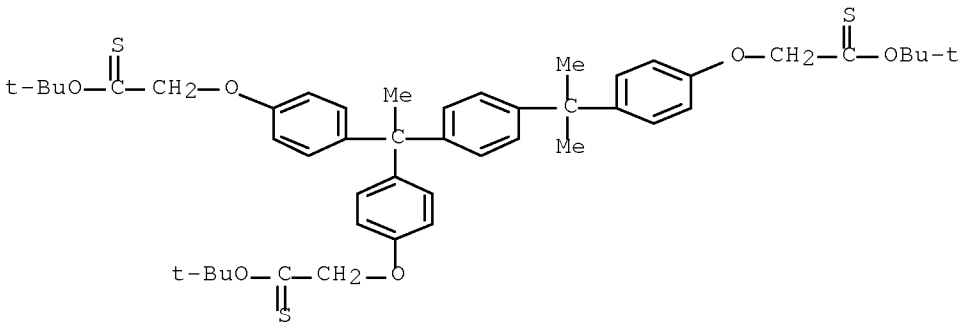
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10078659	A	19980324	JP 1996-235422 <--	19960905
PRIORITY APPLN. INFO.:			JP 1996-235422 <--	19960905

ED Entered STN: 28 Mar 1998

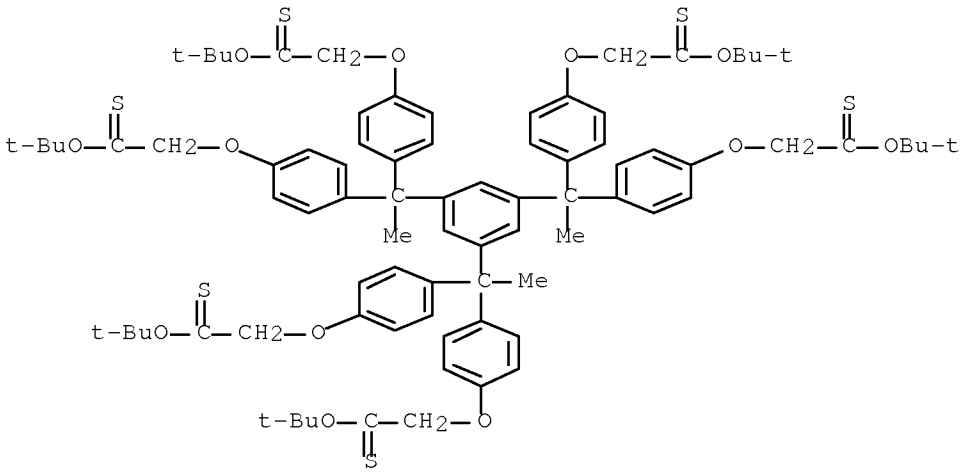
AB The title compns. contain a compound which has ≥1 acid-decomposable group RnC(:Y)XR1 [I; R = (substituted) alkylene; X, Y = O or S, X ≠ Y ≠ O; R1 = alkyl, alkenyl, aralkyl, aryl, cycloalkyl (these groups may be substituted); n = 0-3] and of which the solubility in alkaline aqueous solns. is increased by the action of acid. The compns. may contain (1) a compound generating an acid upon active ray or radiation irradiation, a water-insol. and alkaline aqueous solution-soluble resin, and a non-polymer-type dissoln. inhibitor having the group I and showing the above-mentioned solubility, (2) the acid-generating compound and a polymer-type dissoln. inhibitor having the group I and showing the soly, or (3) the acid-generating compound and the both dissoln. inhibitors. The compns. show high photosensitivity and high resolution resist patterns with good profile independent of the elapse of time from exposure to post-bake, and are useful for manufacture of semiconductor devices.

IT 205443-55-6 205443-63-6
(photoresist composition containing dissoln. inhibitor having thiocarboxylate group)

RN 205443-55-6 HCAPLUS
CN Ethanethioic acid, 2,2'-[[1-[4-[1-[4-[2-(1,1-dimethylethoxy)-2-thioxoethoxy]phenyl]-1-methylethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, O,O-bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 205443-63-6 HCAPLUS
CN Ethanethioic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis-, O,O,O,O,O,O-hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

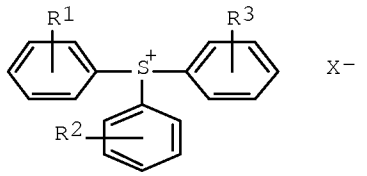


IC ICM G03F007-039
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
ST photoresist dissoln inhibitor acid decomposable group; thiocarboxylate group dissoln inhibitor photoresist; semiconductor device manuf photoresist
IT Photoresists
(photoresist composition containing dissoln. inhibitor having thiocarboxylate group)
IT Semiconductor devices
(photoresist composition containing dissoln. inhibitor having thiocarboxylate group for manufacture of semiconductor devices)
IT 24979-70-2DP, Poly(p-hydroxystyrene), ethers with Bu bromothioacetate 205443-58-9P
(photoresist composition containing dissoln. inhibitor having thiocarboxylate group)
IT 24979-74-6D, p-Hydroxystyrene-styrene copolymer, ethers with Bu bromothioacetate 205443-55-6 205443-61-4 205443-63-6
(photoresist composition containing dissoln. inhibitor having thiocarboxylate group)

L51 ANSWER 39 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:47843 HCAPLUS Full-text
DOCUMENT NUMBER: 128:161008
ORIGINAL REFERENCE NO.: 128:31569a,31572a
TITLE: Positively working photosensitive composition with high sensitivity and resolving power
INVENTOR(S): Sato, Kenichiro; Uenishi, Ichiya
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10010715	A	19980116	JP 1996-164696 <--	19960625
PRIORITY APPLN. INFO.:			JP 1996-164696 <--	19960625

ED Entered STN: 28 Jan 1998
GI



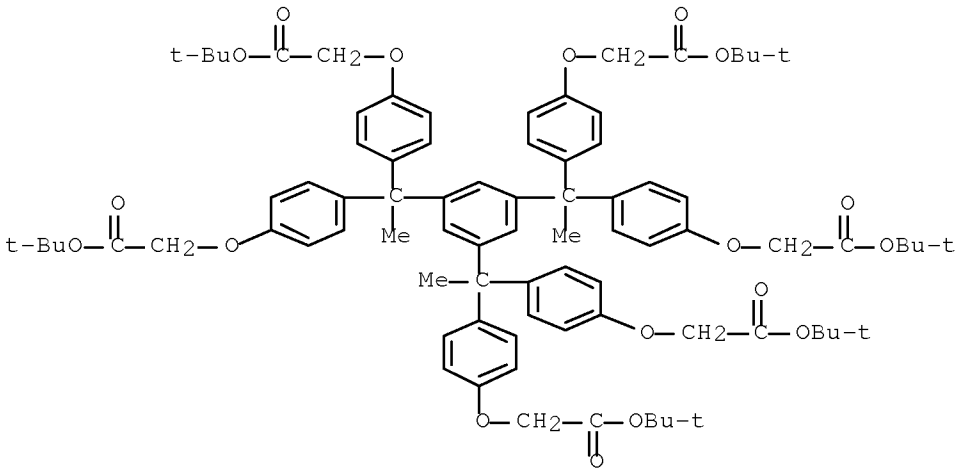
I

AB The composition comprises (A) a resin having a group which is dissolved in an acid and increases solubility in an alkaline developer and (B) I or R4C6H4IC6H4R4+ X- (II) [R1-5 = H, alkyl, cycloalkyl, alkoxy, OH, halo, -SR6; R6 = alkyl, aryl; X- = CR10R11R12SO3-; R10, R11 = (substituted) alkyl, (substituted) cyclic alkyl, (substituted) alkenyl, (substituted) alkoxy, (substituted) aryl, (substituted) aralkyl, (substituted) acyl, -CO2R13; R12 = H, halo, (substituted) alkyl, (substituted) cyclic alkyl, (substituted) alkenyl, (substituted) alkoxy, (substituted) aryl, (substituted) aralkyl, (substituted) acyl, -CO2R13; two or three of R10-12 may form a ring with a methine chain; R13 = H, (substituted) alkyl, (substituted) aryl, (substituted) alkenyl, (substituted) aralkyl] which generates a sulfonic acid by activated light or radiation exposure. The composition comprising I or II, and a low mol. compound with mol. weight ≤3000 which has a group to be dissolved with an acid and increases solubility in an alkaline developer by the effect of an acid, and a water-soluble and alkali solution-insol. resin, is also claimed. The composition shows improved resist pattern profile, high sensitivity and resolving power, and less capability change after exposure.

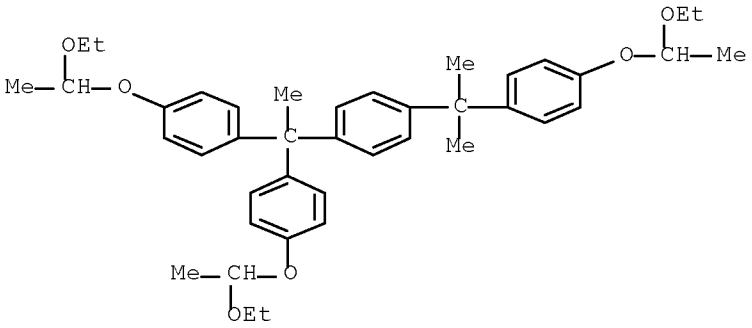
IT 153698-65-8P 202396-81-4P
(dissoln. inhibitor; in pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation)

RN 153698-65-8 HCAPLUS

CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 202396-81-4 HCAPLUS
CN Benzene, 1-[1,1-bis[4-(1-ethoxyethoxy)phenyl]ethyl]-4-[1-[4-(1-ethoxyethoxy)phenyl]-1-methylethyl]- (CA INDEX NAME)



IC ICM G03F007-004
ICS G03F007-004; G03F007-00; G03F007-039; H01L021-027; C07C381-12
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos working photoresist high sensitivity; resolving power pos working photoresist; sulfonic acid generating agent photoresist; activated light radiation photoresist; radiation irradn photoresist
IT Positive photoresists
(pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation)
IT 153698-65-8P 202396-81-4P
(dissoln. inhibitor; in pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation)
IT 5292-43-3, tert-Butyl bromoacetate 76937-83-2 153698-47-6, Cumyl bromoacetate 202396-82-5
(pos.-working photoresist containing agent releasing sulfonic

acid under activated light or radiation irradiation and dissoln. inhibitor from)

IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 125325-82-8, p-Hydroxystyrene-p-(2-tetrahydropyranyloxy)styrene copolymer 142952-62-3, p-Hydroxystyrene-tert-butoxycarbonylmethyloxystyrene copolymer 202396-83-6
(pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation)

IT 109-72-8, Butyllithium, reactions
(pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation form)

IT 108-10-1, Methyl isobutyl ketone 577-11-7 4270-70-6, Triphenylsulfonium chloride 7757-83-7, Disodium sulfite
(pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation from)

IT 202396-77-8P 202396-79-0P
(sulfonate-releasing agent; pos.-working photoresist containing alkali-soluble resin and agent releasing sulfonic acid under activated light or radiation irradiation)

L51 ANSWER 40 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:21505 HCAPLUS Full-text
DOCUMENT NUMBER: 128:121756
ORIGINAL REFERENCE NO.: 128:23735a,23738a
TITLE: Positive image-forming composition
INVENTOR(S): Kawamura, Koichi; Uenishi, Kazuya
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 49 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 814381	A1	19971229	EP 1997-110034 <--	19970619
EP 814381	B1	20010919		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 10010735	A	19980116	JP 1996-160276 <--	19960620
JP 3601738	B2	20041215		
JP 10039514	A	19980213	JP 1996-190939 <--	19960719
JP 3601739	B2	20041215		

PRIORITY APPLN. INFO.: JP 1996-160276 A 19960620
<--
JP 1996-190939 A 19960719
<--

ED Entered STN: 15 Jan 1998

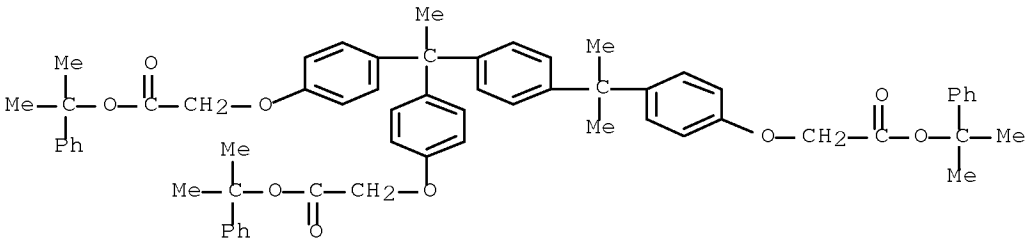
AB A pos. image-forming composition comprises (a) a compound generating an acid by the action of light or heat and (b) at least one compound selected from the N-sulfonylamide compds. represented by the formula L1(SO2NR2COR1)n or L1(CONR2SO2R1)n wherein n is an integer of from 1 to 6, R1 represents an aromatic group or an alkyl group, L1 represents an aromatic group or an alkyl

group when n is 1 or L1 represents a polyvalent linkage group constituted of nonmetal atoms when n is from 2 to 6, and R2 represents a tertiary alkyl group, an alkoxymethyl group, an arylmethyl group, or an alicyclic alkyl group or (c) a polymer having constitutional units represented by the formula -SO2NR3CO- wherein R3 represents a tertiary alkyl group, an alkoxymethyl group, an arylmethyl group, or an alicyclic alkyl group.

IT 153698-69-2P 201656-52-2P
(preparation and use as dissoln. inhibitor for pos. photoresists)

RN 153698-69-2 HCAPLUS

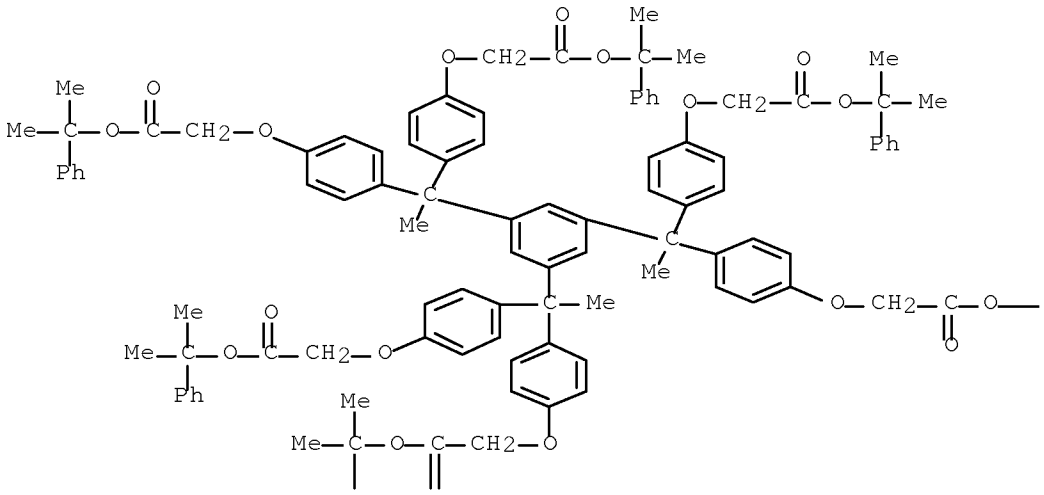
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



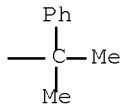
RN 201656-52-2 HCAPLUS

CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 2-A

IC ICM G03F007-004
ICS G03F007-039
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Positive photoresists
(containing thermal or photochem. acid generators)
IT Integrated circuits
Lithographic plates
Semiconductor devices
(pos. photoimaging compns. containing thermal or photochem. acid generators for manufacture of)
IT 201656-41-9 201656-43-1 201656-44-2 201656-45-3 201656-46-4 201656-47-5
(photochem. acid generator for pos. photoresists)
IT 548-62-9, Crystal violet 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 68541-73-1 201656-53-3 201656-54-4 201656-56-6 201656-57-7 201656-59-9 201656-61-3 201656-63-5 201656-65-7 201656-67-9 201656-68-0
(pos. photoresists containing)
IT 77-58-7 85-44-9, 1,3-Isobenzofurandione 95-57-8, o-Chlorophenol 22371-56-8, NK-3508 38686-70-3 69432-40-2 117283-53-1, Victoria Pure Blue BOH 1-naphthalenesulfonate
(pos. photoresists containing sulfonylamide photoacid generators and)
IT 201656-49-7P
(preparation and reaction in preparing photochem. acid generator for pos. photoresists)
IT 153698-69-2P 201656-52-2P
(preparation and use as dissoln. inhibitor for pos. photoresists)
IT 201656-40-8P 201656-42-0P
(preparation and use as photochem. acid generator for pos. photoresists)
IT 24979-70-2DP, Poly(p-hydroxystyrene), reaction products with tert-Bu

bromoacetate 125325-82-8P 129674-22-2P,
p-tert-Butoxycarbonyloxystyrene-p-hydroxystyrene copolymer
201656-50-0P 201656-51-1P
(preparation and use in preparing pos. photoresists)

IT 76937-83-2, α,α,α',α',α'',α''-
Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 110726-28-8,
1-[α-Methyl-α-(4'-hydroxyphenyl)ethyl]-4-
[α',α'-bis(4''-hydroxyphenyl)ethyl]benzene
(reaction in preparing dissoln. inhibitor for pos.
photoresists)

IT 121-44-8, reactions 920-46-7, Methacrylic chloride 2849-81-2
3587-60-8, Benzyl chloromethyl ether 201656-48-6
(reaction in preparing photochem. acid generator for pos.
photoresists)

L51 ANSWER 41 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:8794 HCAPLUS Full-text
DOCUMENT NUMBER: 128:121721
ORIGINAL REFERENCE NO.: 128:23727a,23730a
TITLE: Photosensitive composition using specific sulfonic acid-generating agent
INVENTOR(S): Kodama, Kunihiko; Aogo, Toshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09329894	A	19971222	JP 1996-147534 <--	19960610
PRIORITY APPLN. INFO.:			JP 1996-147534 <--	19960610

ED Entered STN: 08 Jan 1998

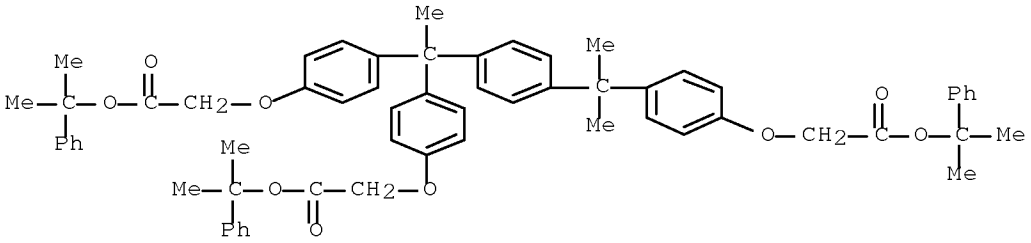
AB The title composition contains a compound A2(XCR1R2SO2A1)n or (Y1XCR1R2SO2)mY2 [n =1-3; m = 2 or 3; A1 = (substituted) straight chain, branched or cyclic alkyl, (substituted) aryl, (substituted) aralkyl, A1 may link to a polymer chain via alkylene, aralkylene, ether or ester group; X = O or S; when n = 1, A2 is (substituted) straight chain, branched or cyclic alkyl, (substituted) aryl or (substituted) aralkyl and may link to a polymer chain via alkylene, aralkylene, ether or ester group, when n = 2 or 3, A2s are straight chain, branched or cyclic alkylene, arylene or aralkylene; Y1 is the same meanings as shown in A2 in the case of n = 1; Y2 = straight chain, branched or cyclic alkylene, arylene, aralkylene; R1, R2 = H, (substituted) straight chain, branched or cyclic alkyl, (substituted) aryl, (substituted) aralkyl, acyl, alkylsulfonyl, arylsulfonyl, alkylsulfinyl, arylsulfinyl, alkoxy, R1 and R2, R1 and A2 or R1 and Y1 may link to form a ring which may contain hetero atoms] which generates sulfonic acid upon irradiation with an active ray or radiation. The composition comprises the compound, a dissoln.-inhibiting compound with mol. weight ≤3000 which has an acid-decomposable group and of which the solubility in alkaline developing solution is increased by the action of acids, and a resin insol. in water and soluble in alkaline developing solns. The composition shows high photosensitivity and high resolution independent of the elapse of time from exposure to heat treatment.

IT 153698-69-2P 196709-88-3P
(dissoln. inhibitor; photoresist containing sulfonic

acid-generating agent)

RN 153698-69-2 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

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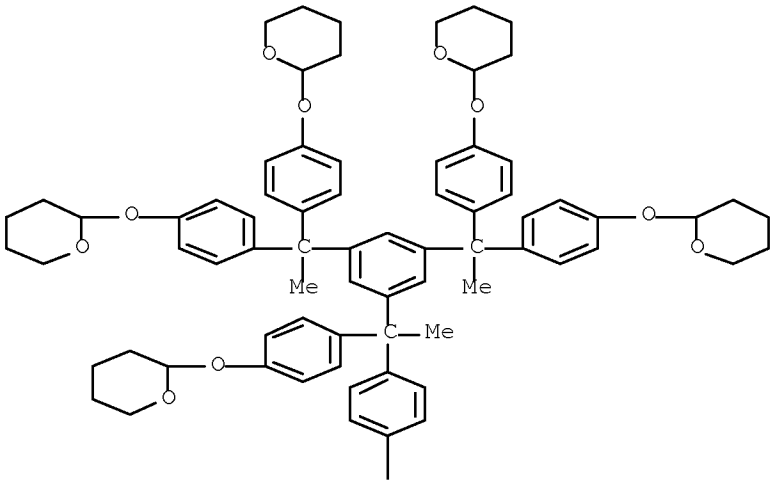
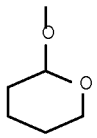


PAGE 2-A

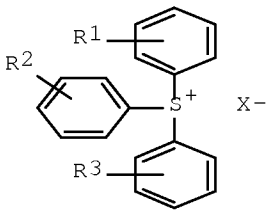


IC ICM G03F007-039
ICS G03F007-00; G03F007-004; G03F007-033; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist sulfonic acid generating agent; dissoln inhibitor hydroxybenzene deriv photoresist
IT Photoresists
(photoresist containing sulfonic acid-generating agent)
IT 153698-69-2P 196709-88-3P 201790-29-6P
201790-30-9P
(dissoln. inhibitor; photoresist containing sulfonic acid-generating agent)
IT 87228-66-8P 193754-99-3P 201790-23-0P 201790-24-1P
(photoresist containing sulfonic acid-generating agent)
IT 201790-25-2 201790-26-3 201790-27-4 201790-28-5
(photoresist containing sulfonic acid-generating agent)

L51 ANSWER 42 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:648762 HCAPLUS Full-text
DOCUMENT NUMBER: 127:364166
ORIGINAL REFERENCE NO.: 127:71158h,71159a
TITLE: Positive-working photosensitive composition containing sulfonic acid generating compound
INVENTOR(S): Aoai, Toshiaki; Kodama, Kunihiko; Sato, Kenichiro; Uenishi, Kazuya; Yamanaka, Tsukasa
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 59 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09258435	A	19971003	JP 1996-66664 <--	19960322
PRIORITY APPLN. INFO.:			JP 1996-66664 <--	19960322

ED Entered STN: 11 Oct 1997
GI



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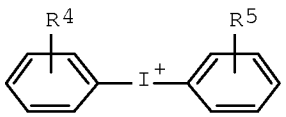


II

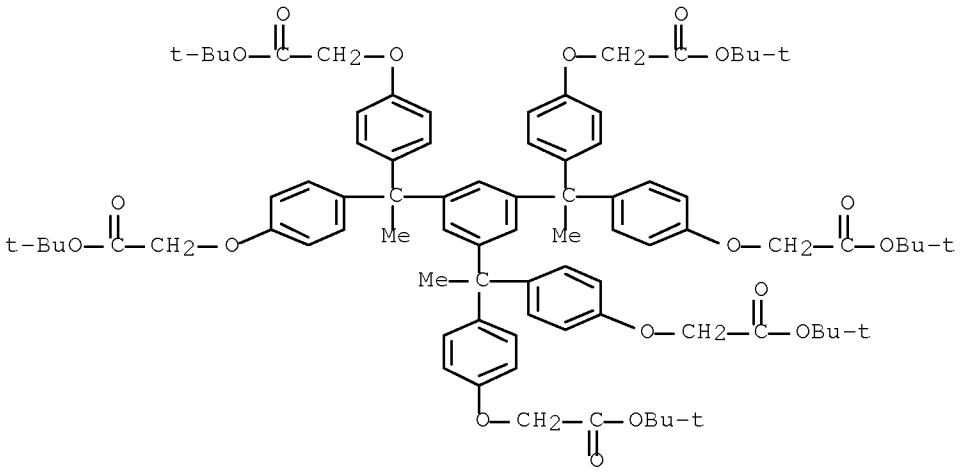
AB The title composition contains a resin having groups which are decomposed by the action of acids to increase the solubility in alkaline developing solns.

and a compound I or II [R1-5 = H, alkyl, cycloalkyl, alkoxy, OH, halo, SR6 (R6 = alkyl or aryl); X- = benzenesulfonic acid, naphthalenesulfonic acid, or anthracenesulfonic acid anion having ≥1 group selected from R7CO, R8CONH, R9NHCO, R10OCONH, R11NHCO2, R12NHCONH, R13NHCSNH, R14SO2NH, nitro, (R7 = H, alkyl, cycloalkyl, aralkyl, aryl; R8-14 = alkyl, cycloalkyl, aralkyl, aryl)] which generates sulfonic acid upon irradiation The composition may comprise the sulfonic acid-generating compound, an acid-decomposable dissoln. inhibitor with mol. weight ≤3000 which has acid-decomposable groups and of which the solubility in alkaline developing solns. increases by the action of acids, and a resin insol. in water and soluble in aqueous alkali solns. The composition shows high photosensitivity and provides high quality resist patterns with good profile independent of the elapse of time after exposure.

IT 153698-65-8P 153698-69-2P
(dissoln. inhibitor; pos.-working photoresist composition containing sulfonic acid generating compound)

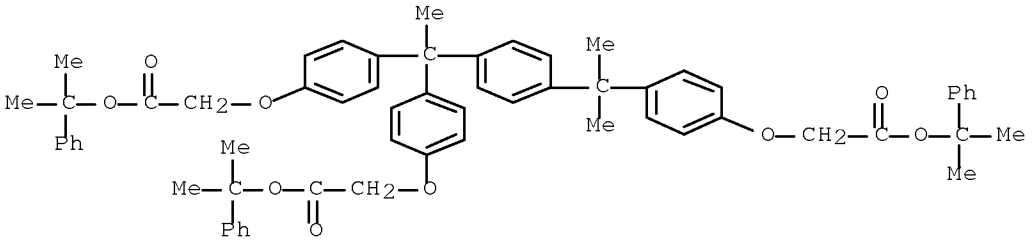
RN 153698-65-8 HCAPLUS

CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 153698-69-2 HCAPLUS

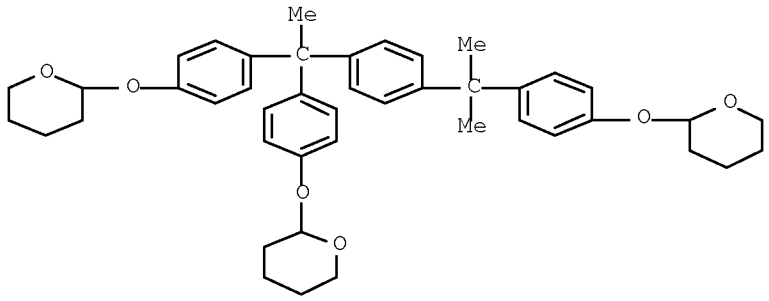
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



IT 153698-53-4 196709-88-3
(dissoln. inhibitor; pos.-working photoresist composition containing sulfonic acid generating compound)

RN 153698-53-4 HCAPLUS

CN 2H-Pyran, 2,2'-[[1-[4-[1-methyl-1-[4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[tetrahydro- (CA INDEX NAME)



RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

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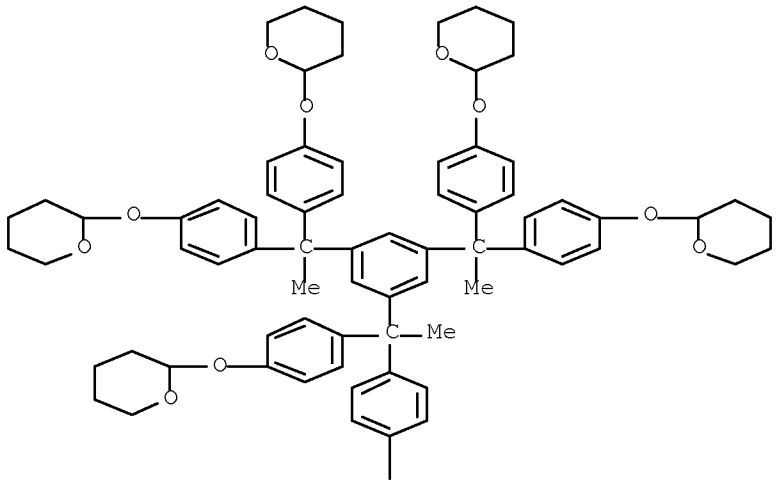
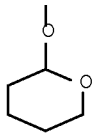




IC ICM G03F007-004
ICS G03F007-004; C09K003-00; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
ST sulfonic acid generating compd photoresist; alkali sol resin photoresist; dissoln inhibitor photoresist
IT Positive photoresists
(pos.-working photoresist composition containing sulfonic acid generating compound)
IT 153698-58-9P 153698-65-8P 153698-68-1P
153698-69-2P 153698-70-5P 153840-05-2P 159293-87-5P
(dissoln. inhibitor; pos.-working photoresist composition containing sulfonic acid generating compound)
IT 153698-53-4 161715-09-9 194535-96-1 194535-97-2
194535-98-3 196709-88-3 196709-96-3
(dissoln. inhibitor; pos.-working photoresist composition containing sulfonic acid generating compound)
IT 198410-40-1P 198410-42-3P 198410-44-5P 198410-46-7P
198410-48-9P 198410-49-0P
(pos.-working photoresist composition containing sulfonic acid generating compound)
IT 125325-82-8, p-Hydroxystyrene-p-(2-tetrahydropyranyloxy)styrene copolymer 142952-62-3, tert-Butoxycarbonylmethyloxystyrene-p-hydroxystyrene copolymer 158593-28-3, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer 186769-12-0, p-(1-Butoxyethoxy)styrene-p-hydroxystyrene copolymer 198410-51-4 198410-53-6 198410-55-8 198410-57-0 198410-59-2 198410-60-5 198410-62-7 198410-64-9 198410-65-0 198410-67-2 198410-69-4 198410-71-8
(pos.-working photoresist composition containing sulfonic acid generating compound)
IT 110-87-2, 3,4-Dihydro-2H-pyran 4466-18-6, α,α',α''-Tris(4-hydroxyphenyl)-1,3,5-triisopropylbenzene 5292-43-3, tert-Butyl bromoacetate 24424-99-5, Di-tert-butyl dicarbonate 76937-83-2, α,α,α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 110726-28-8 153698-47-6, Cumyl bromoacetate
(preparation of acid-decomposable dissoln. inhibitor for photoresist)

L51 ANSWER 43 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:632387 HCAPLUS Full-text
DOCUMENT NUMBER: 127:339242
ORIGINAL REFERENCE NO.: 127:66478h,66479a
TITLE: Positive photosensitive composition
INVENTOR(S): Aoai, Toshiaki; Kodama, Kunihiko; Uenishi, Kazuya; Yamanaka, Tsukasa
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 96 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 795786	A2	19970917	EP 1997-103978 <--	19970310
EP 795786	A3	19980506		
EP 795786	B1	20020502		
R: BE, DE, FR, GB				
JP 10282669	A	19981023	JP 1997-55224 <--	19970310
JP 3890358	B2	20070307		
US 6010820	A	20000104	US 1997-814826 <--	19970311
US 6200729	B1	20010313	US 1999-422344 <--	19991021

PRIORITY APPLN. INFO.:
JP 1996-53316 A 19960311 <--
JP 1996-138918 A 19960531 <--
JP 1996-167976 A 19960627 <--
JP 1997-27111 A 19970210 <--
US 1997-814826 A3 19970311 <--

OTHER SOURCE(S): MARPAT 127:339242
ED Entered STN: 04 Oct 1997
GI

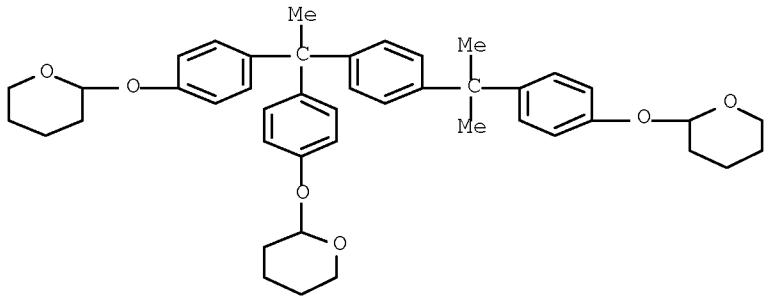
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Provided is a pos. photosensitive composition which has high photosensitivity, is capable of giving an excellent resist pattern, and changes little with time after exposure. The pos. photosensitive composition comprises (1) a resin having a group(s) capable of decomposing by the action of an acid to enhance solubility of the resin in an alkaline developing solution and (2) a compound represented by formula I, II, or III (R1-9 = H, alkyl, cycloalkyl, alkoxy, OH, halogen, or -SR10, where R10 = alkyl or aryl; X- = a benzenesulfonic, naphthalenesulfonic, or anthracenesulfonic acid anion; and m, n, p, q = an integer of 1 to 3) which is capable of generating a sulfonic acid upon irradiation with actinic rays or a radiation.

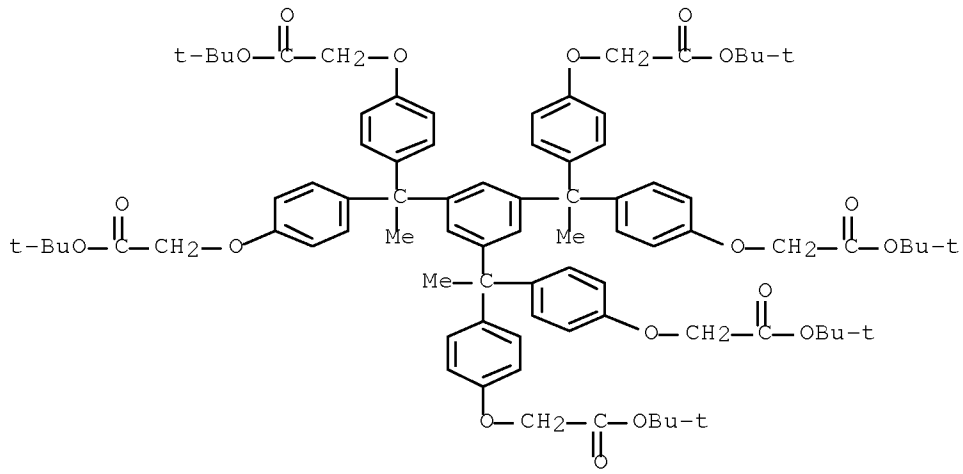
IT 153698-53-4P 153698-65-8P 153698-69-2P
196709-88-3P
(preparation and use as dissoln. inhibitor for pos. chemical-amplification photoresists)

RN 153698-53-4 HCAPLUS

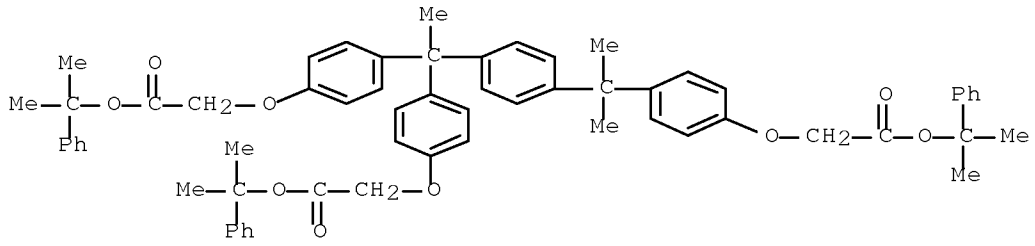
CN 2H-Pyran, 2,2'-[[1-[4-[1-methyl-1-[4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[tetrahydro- (CA INDEX NAME)



RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



RN 196709-88-3 HCAPLUS

CN 2H-Pyran, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis(4,1-phenyleneoxy)]]hexakis[tetrahydro- (9CI) (CA INDEX NAME)

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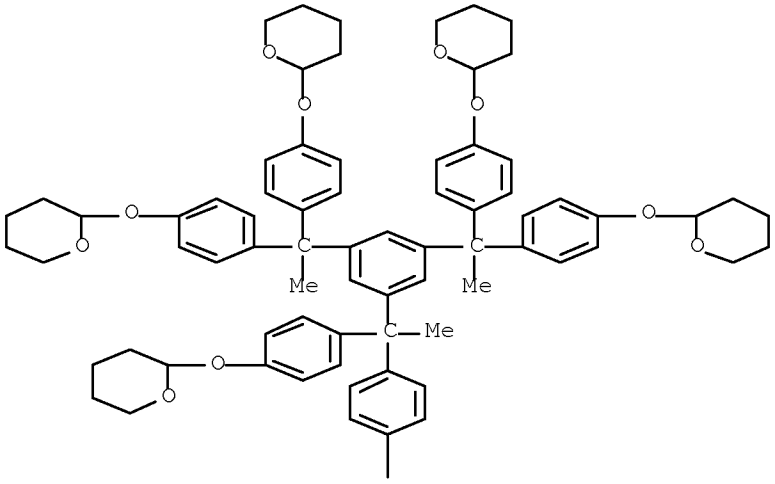

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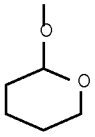


IC ICM G03F007-004
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos photoresist photoacid generator arylsulfonium arylsulfonate; lithog plate pos photoresist arylsulfonium arylsulfonate
IT Positive photoresists
(chemical-amplification; arylsulfonium arylsulfonate photoacid generators for)
IT 197845-90-2P
(photoacid generator for pos. chemical-amplification photoresists)
IT 197447-11-3 197447-12-4 197447-13-5 197447-15-7 197447-16-8 197447-18-0 197447-21-5 197447-23-7 197595-14-5 197595-18-9 197595-20-3 197595-24-7 197595-29-2 197595-30-5 197595-33-8 197595-35-0 197595-36-1 197663-75-5 197663-76-6 197667-06-4 197667-07-5 197730-16-8
(photoacid generator for pos. chemical-amplification photoresists)
IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 125325-82-8,

p-Hydroxystyrene-p-(2-tetrahydropyranyloxy)styrene copolymer 133685-94-6, o-Hydroxystyrene-p-hydroxystyrene copolymer 142952-62-3, tert-Butoxycarbonylmethoxystyrene-p-hydroxystyrene copolymer 158593-28-3, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer 171429-59-7, p-Acetoxystyrene-p-hydroxystyrene copolymer 196709-91-8, p-(1-tert-Butoxyethoxy)styrene-p-hydroxystyrene copolymer
(pos. chemical-amplification photoresists containing arylsulfonium arylsulfonate photoacid generators and)

IT 153698-53-4P 153698-58-9P 153698-65-8P 153698-68-1P 153698-69-2P 153698-70-5P 153840-05-2P 159293-87-5P 161715-09-9P 194535-96-1P 194535-97-2P 194535-98-3P 196709-88-3P 196709-96-3P
(preparation and use as dissoln. inhibitor for pos. chemical-amplification photoresists)

IT 197447-09-9P 197447-14-6P 197447-17-9P 197447-19-1P 197447-22-6P 197595-16-7P 197595-19-0P 197595-27-0P 197595-32-7P 197667-05-3P
(preparation and use as photoacid generator for pos. chemical-amplification photoresists)

IT 110-87-2, 3,4-Dihydro-2H-pyran 865-47-4, Potassium tert-butoxide 4466-18-6, α,α',α''-Tris(4-hydroxyphenyl)-1,3,5-triisopropylbenzene 5292-43-3, tert-Butyl bromoacetate 24424-99-5, Di-tert-butyl dicarbonate 76937-83-2, α,α,α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 110726-28-8, 1-[α-Methyl-α-(4'-hydroxyphenyl)ethyl]-4-[α',α'-bis(4''-hydroxyphenyl)ethyl]benzene 153698-47-6, Cumyl bromoacetate
(reaction in preparing dissoln. inhibitor for pos. chemical-amplification photoresists)

IT 1483-72-3, Diphenyliodonium chloride 4270-70-6, Triphenylsulfonium chloride 5421-53-4, 4,4'-Bis(tert-butylphenyl)iodonium chloride 35177-74-3 80468-75-3, Diphenyl-4-phenylthiophenylsulfonium chloride 197447-24-8 197595-21-4 197595-37-2
(reaction in preparing photoacid generator for pos. chemical-amplification photoresists)

L51 ANSWER 44 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:610020 HCAPLUS Full-text
DOCUMENT NUMBER: 127:285943
ORIGINAL REFERENCE NO.: 127:55699a,55702a
TITLE: Positive-working photoresist composition using specific alkali-soluble resin
INVENTOR(S): Tan, Shiro; Aoso, Toshiaki; Yamanaka, Hitoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09236920	A	19970909	JP 1996-41689 <--	19960228
PRIORITY APPLN. INFO.:			JP 1996-41689 <--	19960228

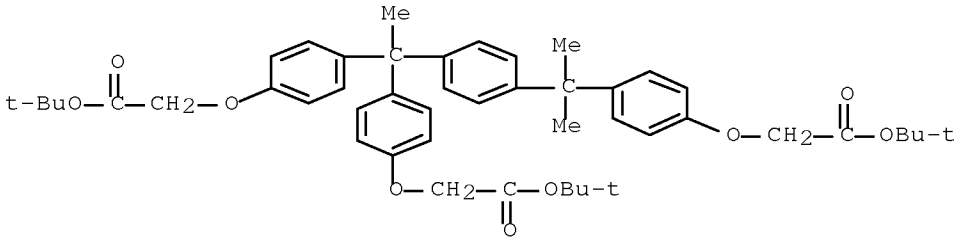
ED Entered STN: 24 Sep 1997

AB The title composition contains (a) a resin with weight average mol. weight (Mw) 4000-80,000 and mol. weight distribution Mw/Mn = 1.6-4.0 (Mn = number average mol. weight) which has ≥1 acid-decomposable group selected from acetal and silyl ether groups and of which the solubility in alkaline developing solns. increases by the action of acids, (b) a compound generating an acid upon irradiation, (c) a solvent, and (d) an optional non-polymer-type dissoln. inhibitor which has ≥1 selected from tert-alkyl ester and tert-alkyl carbonate groups and of which the solubility in alkaline aqueous solns. increases by the action of acids. The composition shows high sensitivity and storage stability, and provides high resolution patterns with good profile and the sensitivity and the profile. Thus, p-hydroxystyrene-styrene copolymer of which 20% of the OH groups were tert-butoxy-1-ethylated, p-Me2CC6H4(SO2)2Ph, and an organic basic compound were dissolved in propylene glycol monoethyl ether acetate to give a resist solution

IT 153698-54-5P
(dissoln. inhibitor; photoresist composition containing alkali soluble polymer with acetal or silyl ether group)

RN 153698-54-5 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-[4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-1-methylethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, 1,1'-bis(1,1-dimethylethyl) ester (CA INDEX NAME)



IC ICM G03F007-039
ICS G03F007-004; G03F007-075; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37

ST photoresist compn polyhydroxystyrene silyl ether deriv; acetal deriv polyhydroxystyrene photoresist; dissoln inhibitor polyhydroxy compd ester

IT Positive photoresists
(photoresist composition containing alkali soluble polymer with acetal or silyl ether group)

IT 153698-54-5P 153698-63-6P
(dissoln. inhibitor; photoresist composition containing alkali soluble polymer with acetal or silyl ether group)

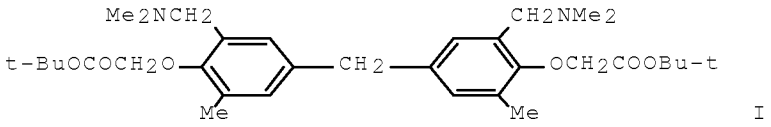
IT 75-77-4DP, Trimethylsilyl chloride, ether with hydroxystyrene polymer 926-02-3DP, tert-Butyl vinyl ether, ether with hydroxystyrene polymer 24979-70-2DP, Poly(p-hydroxystyrene), ethers 24979-74-6DP, p-Hydroxystyrene-styrene copolymer, ethers
(photoresist composition containing alkali soluble polymer with acetal or silyl ether group)

L51 ANSWER 45 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:557773 HCAPLUS Full-text
DOCUMENT NUMBER: 127:255331

ORIGINAL REFERENCE NO.: 127:49761a
TITLE: Positive-working photosensitive composition providing good profile pattern
INVENTOR(S): Fujimori, Toru; Aoso, Toshiaki; Yamanaka, Hitoshi; Uenishi, Kazuya
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09211865	A	19970815	JP 1996-19002 <--	19960205
PRIORITY APPLN. INFO.:			JP 1996-19002 <--	19960205

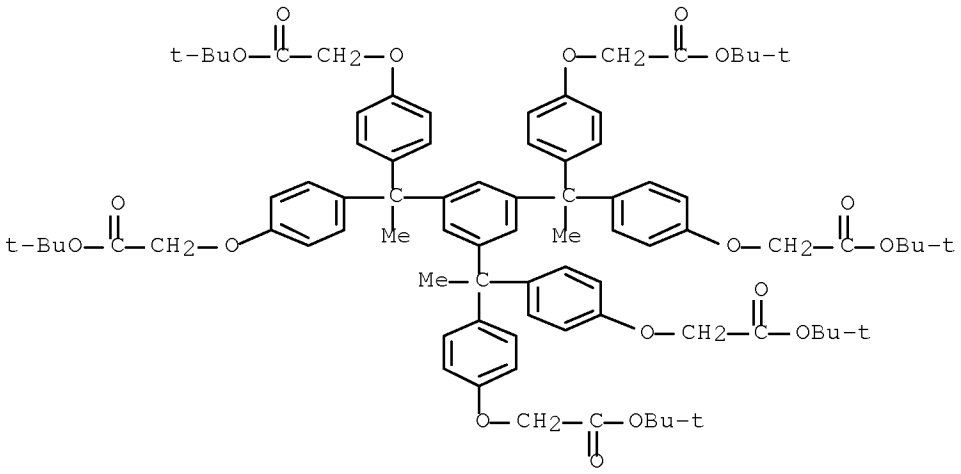
ED Entered STN: 01 Sep 1997
GI



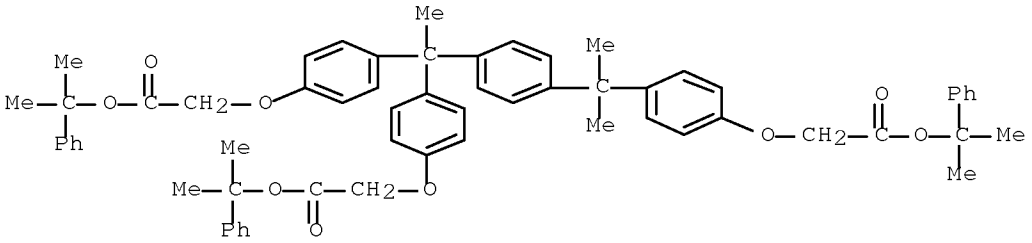
I

AB The title composition contains a resin insol. in water and soluble in alkaline aqueous solns., a compound generating an acid upon irradiation, and an acid-decomposable dissoln.-inhibiting compound with mol. weight ≤3000 which has basic N and acid-decomposable groups and of which the solubility in alkaline developing solns. is increased by the action of acid. The composition may also contain an acid-decomposable dissoln.inhibitor without N. The diffusion of the acid and the inactivation of the acid on the surface of the resist during the period from exposure to heat treatment are prevented and the dissoln.-inhibiting effect is improved, and hence high resolution patterns with high sensitivity and good profile are obtained. Thus, a resist comprised m-cresol-p-cresol-HCHO novolak resin, Ph3S+.CF3SO3-, 2,2-bis(tert-butoxycarbonyloxyphenyl)propane, and I.

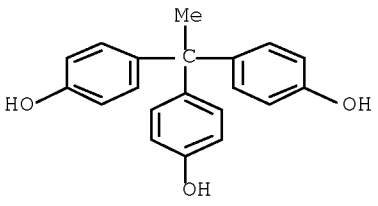
IT 153698-65-8P 153698-69-2P
(pos.-working photoresist composition containing acid-decomposable dissoln.-inhibitor)
RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



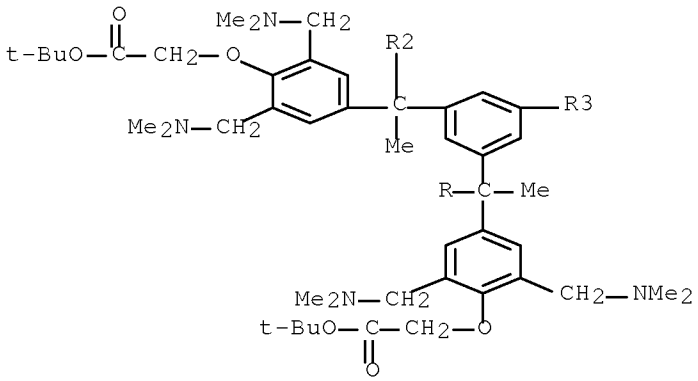
IT 27955-94-8D, butoxycarbonylmethyl ethers 195706-74-2
(pos.-working photoresist composition containing acid-decomposable dissoln.-inhibitor)
RN 27955-94-8 HCAPLUS
CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



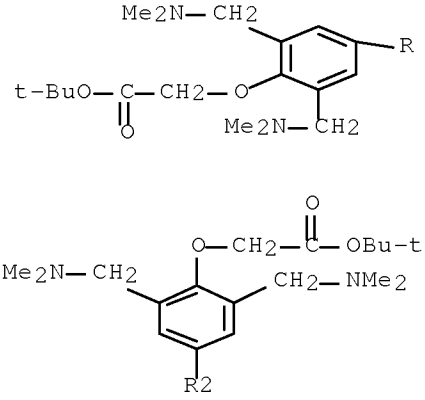
RN 195706-74-2 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidynebis[2,6-bis[(dimethylamino)methyl]-4,1-

phenylene]oxy]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

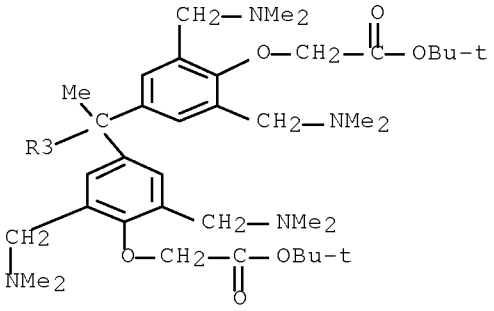
PAGE 1-A



PAGE 2-A



PAGE 3-A



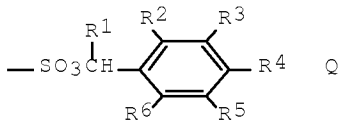
IC ICM G03F007-039
ICS G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST acid decomposable dissoln inhibitor photoresist; nitrogen compd dissoln inhibitor photoresist
IT Positive photoresists
(pos.-working photoresist composition containing acid-decomposable dissoln.-inhibitor)
IT 153698-58-9P 153698-65-8P 153698-68-1P
153698-69-2P 153698-70-5P 153840-05-2P 159293-87-5P
195706-49-1P 195706-51-5P
(pos.-working photoresist composition containing acid-decomposable dissoln.-inhibitor)
IT 603-44-1D, Tris(p-hydroxyphenyl)methane, tetrahydropyranyl derivs.
4466-18-6D, cumyloxycarbonylmethy ethers 26505-28-2D, butoxycarbonylmethyl ethers 27955-94-8D, butoxycarbonylmethyl ethers 31171-18-3D, butoxycarbonylmethyl ethers 51866-54-7D, butoxycarbonyl derivs. 51866-62-7D, tetrahydropyranyl derivs. 110726-28-8D, derivs. 138089-25-5, 2,2-Bis(tert-butoxycarbonyloxyphenyl)propane 148452-55-5D, derivs. 148517-26-4D, tetrahydropyranyl derivs. 195706-64-0 195706-66-2 195706-68-4 195706-70-8 195706-72-0 195706-74-2 195706-76-4 195706-78-6 195706-80-0 195706-83-3 195706-85-5 195706-87-7
(pos.-working photoresist composition containing acid-decomposable dissoln.-inhibitor)
IT 185749-38-6P 185749-42-2P
(preparation of acid-decomposable dissoln. inhibitor for photoresist)
IT 50-00-0, Formaldehyde, reactions 110-87-2, 3,4-Dihydro-2H-pyran 2467-25-6 4466-18-6 5292-43-3, tert-Butyl bromoacetate 24424-99-5, Di(tert-butyl) dicarbonate 76937-83-2, α,α,α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 115052-64-7
(preparation of acid-decomposable dissoln. inhibitor for photoresist)

L51 ANSWER 46 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:509607 HCAPLUS Full-text
DOCUMENT NUMBER: 127:212529
ORIGINAL REFERENCE NO.: 127:41197a,41200a
TITLE: Chemically-amplified positive-working photoresist composition with high resolution
INVENTOR(S): Aogo, Toshiaki; Fujimori, Toru; Yamanaka, Tsukasa; Uenishi, Kazuya
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 09197661 A 19970731 JP 1996-9582 19960123
<--
PRIORITY APPLN. INFO.: JP 1996-9582 19960123
<--

ED Entered STN: 11 Aug 1997
GI

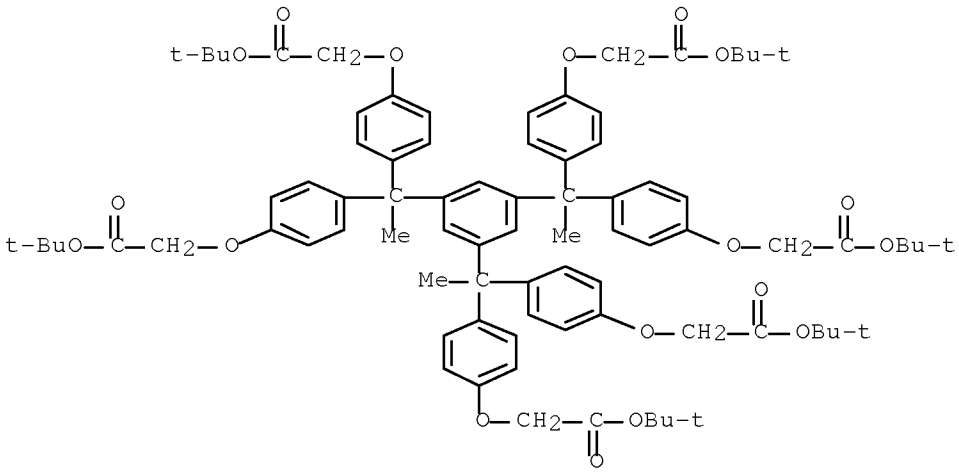


AB The composition contains (A) a polymer having a group which decomps. by acids and increase solubility to an alkali developer and (B) a compound having a phenylalkoxysulfonyl Q (R1 = H, alkyl, aryl; R2-6 = H, alkyl, alkoxy, aryloxy, halo, cyano, acyl, acyloxy, amido; 2 out of R2-6 may form ring; ≥1 R2-6 = alkoxy, aryloxy) which generates sulfonic acid by active-light-beam irradiation or radiation exposure. The composition containing a low-mol.-weight dissoln. inhibitor (mol. weight ≤3000) having the same group with A, B, and a water-insol. and alkali-soluble polymer is also claimed. The composition shows high photosensitivity, resolution, and transparency to short-wavelength light (especially to deep UV light).

IT 153698-65-8P 194536-00-0P
(dissoln. inhibitor; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)

RN 153698-65-8 HCAPLUS

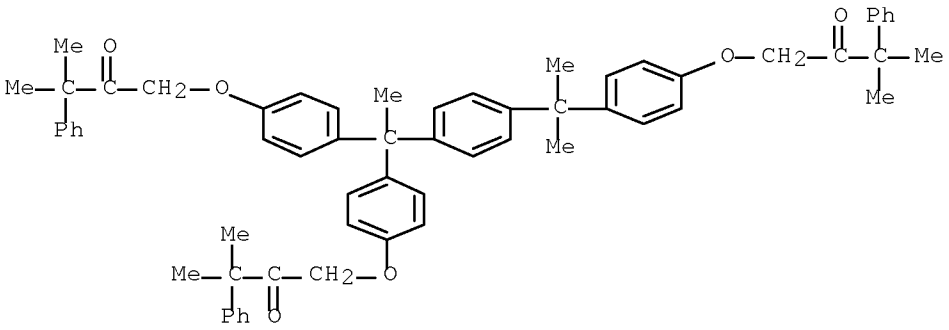
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



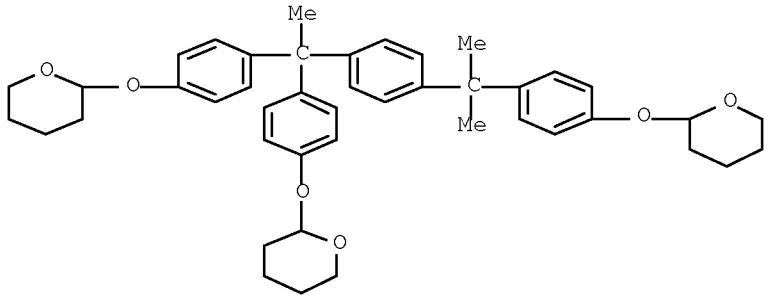
RN 194536-00-0 HCAPLUS

CN 2-Butanone, 1,1'-[[[4-[1-methyl-1-[4-(3-methyl-2-oxo-3-

phenylbutoxy)phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[3-methyl-3-phenyl- (9CI) (CA INDEX NAME)



IT 153698-53-4
(dissoln. inhibitor; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
RN 153698-53-4 HCAPLUS
CN 2H-Pyran, 2,2'-[[1-[4-[1-methyl-1-[4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[tetrahydro- (CA INDEX NAME)



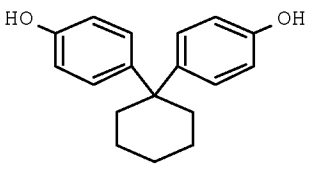
IC ICM G03F007-004
ICS G03F007-004; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 38
ST phenyl alkoxy sulfonate acid generator photoresist; alkali soluble polystyrene resist transparency
IT Positive photoresists
(chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 194535-88-1P
(acid generator; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 194535-94-9P 194535-95-0P
(acid generator; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)

IT 194535-83-6 194535-84-7 194535-85-8 194535-86-9 194535-87-0
194535-89-2 194535-90-5 194535-91-6 194535-92-7 194535-93-8
(acid generator; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 133685-94-6, o-Hydroxystyrene-p-hydroxystyrene copolymer 171429-59-7, p-Acetoxystyrene-p-hydroxystyrene copolymer
(alkali-soluble; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 125325-82-8, p-Hydroxystyrene; p-(2-tetrahydropyranyloxy)styrene copolymer 142952-62-3, p-t-Butoxycarbonylmethyloxystyrene; p-hydroxystyrene copolymer 158593-28-3, p-(1-Ethoxyethoxy)styrene-p-hydroxystyrene copolymer
(binder; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 145706-01-0P
(chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 705-76-0P, 3,5-Dimethoxybenzyl alcohol 33524-31-1P, 2,5-Dimethoxybenzyl alcohol
(chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 98-68-0, 4-Methoxybenzenesulfonyl chloride 110-87-2, 3,4-Dihydro-2H-pyran 1132-21-4, 3,5-Dimethoxybenzoic acid 2633-67-2, 4-Styrenesulfonyl chloride 2785-98-0, 2,5-Dimethoxybenzoic acid 4466-18-6 5292-43-3, tert-Butyl bromoacetate 24424-99-5, Di-tert-butyl dicarbonate 76937-83-2, α,α,α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 153698-47-6, Cumyl bromoacetate 194536-01-1
(chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 153698-58-9P 153698-65-8P 153698-68-1P 153698-70-5P 153840-05-2P 159293-87-5P 194536-00-0P
(dissoln. inhibitor; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)
IT 153698-53-4 153698-63-6 194535-96-1 194535-97-2 194535-98-3 194535-99-4
(dissoln. inhibitor; chemical-amplified pos.-working photoresist with high resolution and transparency to deep UV light)

L51 ANSWER 47 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:353433 HCAPLUS Full-text
DOCUMENT NUMBER: 127:11104
ORIGINAL REFERENCE NO.: 127:2177a,2180a
TITLE: Positive-working photoresist pattern formation
INVENTOR(S): Aoso, Toshiaki; Kokubo, Tadayoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 09073168 A 19970318 JP 1995-229236 19950906
<--
PRIORITY APPLN. INFO.: JP 1995-229236 19950906
<--
ED Entered STN: 05 Jun 1997
GI



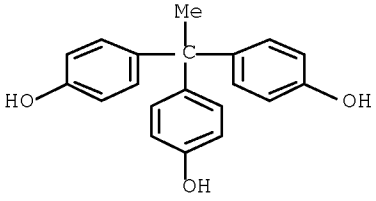
I

AB A photosensitive composition containing a 1,2-naphthoquinone-2-diazido-6-sulfonic acid ester compound, an alkali-soluble resin, and a phenol compound with mol. weight ≤1000 is applied on a substrate, patternwise exposed with light of 248 nm, and developed with an alkaline developing solution to form a pos. photoresist pattern. A resist comprising 2,6-bis(3'-methyl-4'-hydroxybenzyl)-p-cresol 1,2-naphthoquinonediazido-6-sulfonate, m-cresol-p-cresol-HCHO novolak resin, and I showed high sensitivity and wide development latitude, and gave a high resolution pattern with line width ≤0.5μm by using a KrF excimer laser.

IT 27955-94-8
(pos.-working photoresist containing naphthoquinonediazidesulfonate, alkali-soluble resin, and phenolic compound)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-022
ICS G03F007-004; G03F007-20; G03F007-32; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37

ST photoresist naphthoquinone diazide sulfonate; phenolic compd pos working photoresist

IT Phenolic resins, preparation
(novolak; pos.-working photoresist containing naphthoquinonediazidesulfonate, alkali-soluble resin, and phenolic compound)

IT Positive photoresists

(pos.-working photoresist containing naphthoquinonediazidesulfonate, alkali-soluble resin, and phenolic compound)

IT 189380-45-8P
(1pos.-working photoresist containing naphthoquinonediazidesulfonate, alkali-soluble resin, and phenolic compound)

IT 843-55-0 27955-94-8 110726-28-8 148452-55-5
(pos.-working photoresist containing naphthoquinonediazidesulfonate, alkali-soluble resin, and phenolic compound)

IT 27029-76-1P, m-Cresol-p-cresol-formaldehyde copolymer 100346-90-5P, m-Cresol-p-cresol-formaldehyde-2,5-xylenol copolymer 147212-16-6P, o-Cresol-p-cresol-2,3-dimethylphenol-2,6-dimethylphenol-formaldehyde-2,3,5-trimethylphenol copolymer 179954-54-2P, o-Cresol-2,3-dimethylphenol-2,6-dimethylphenol-formaldehyde-methylenebis-p-cresol-2,3,5-trimethylphenol copolymer 189310-79-0P 189310-80-3P 189310-81-4P 189380-42-5P 189380-43-6P 189380-44-7P 189380-46-9P 189380-47-0P 189380-48-1P 189380-49-2P 189380-50-5P
(pos.-working photoresist containing naphthoquinonediazidesulfonate, alkali-soluble resin, and phenolic compound)

L51 ANSWER 48 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:320953 HCAPLUS Full-text
DOCUMENT NUMBER: 126:299685
ORIGINAL REFERENCE NO.: 126:57893a,57896a
TITLE: Positive-working photoresist composition and coating film
INVENTOR(S): Uenishi, Kazuya; Fujimori, Tooru; Kokubo, Tadayoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09062006	A	19970307	JP 1995-217593 <--	19950825
PRIORITY APPLN. INFO.:			JP 1995-217593 <--	19950825

ED Entered STN: 19 May 1997

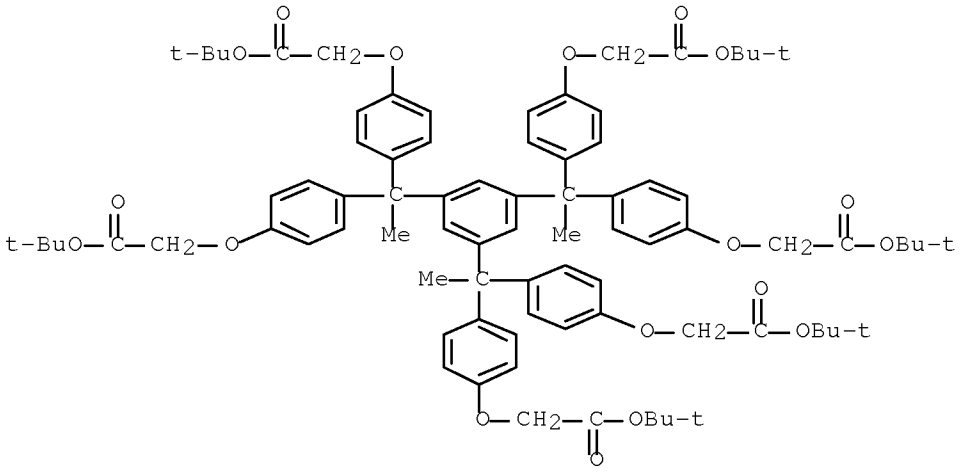
AB The title photoresist composition contains (1) an alkali-soluble resin, (2) a compound having ≥1 enol ether group CR1R2:CR3O [R1-3 = H, (substituted) alkyl, (substituted) cycloalkyl, (substituted) aryl, 2 of R1-3 may link to form a saturated or unsatd. ring], (3) an acidic group-containing compound, (d) an acid-decomposable group-containing low-mol.-weight compound with mol. weight ≤3000, (4) a compound which is decomposed by irradiation with active rays or radiations to generate an acid, and (5) a solvent. A coating film, obtained by coating the composition on a substrate followed by heat-drying, is also claimed. The shrinkage upon baking and decrease in thickness upon development of the film of the composition are less, and the composition shows high photosensitivity and improved stability during storage after exposure and until baking and provides high resolution patterns with good profile.

IT 153698-65-8 153698-69-2

(dissoln. inhibitor; photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)

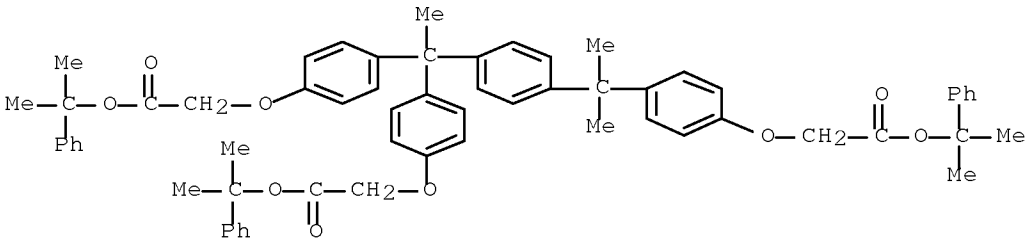
RN 153698-65-8 HCAPLUS

CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 153698-69-2 HCAPLUS

CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



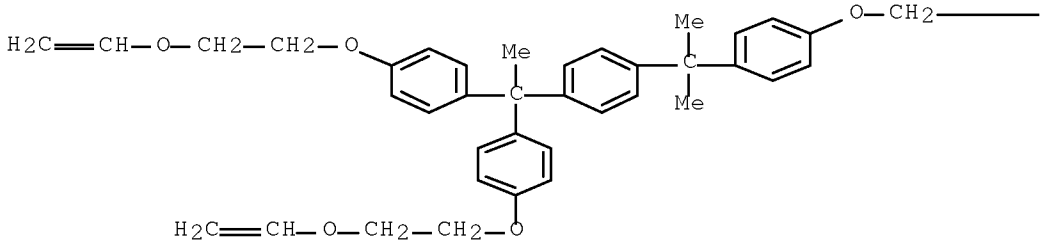
IT 189103-10-4P

(photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)

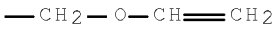
RN 189103-10-4 HCAPLUS

CN Benzene, 1-[1,1-bis[4-[2-(ethenyloxy)ethoxy]phenyl]ethyl]-4-[1-[4-[2-(ethenyloxy)ethoxy]phenyl]-1-methylethyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03F007-039
ICS G03F007-00; G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photoresist enol ether compd; acidic compd photoresist; acid decomposable dissoln inhibitor photoresist
IT Photoresists
(photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)
IT 153698-63-6 153698-65-8 153698-69-2 189103-11-5 189103-12-6 189103-13-7 189103-14-8 189103-15-9
(dissoln. inhibitor; photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)
IT 52754-92-4 57900-42-2 62613-15-4 66003-78-9 124737-97-9 153698-46-5
(photo-acid generator; photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)
IT 52411-04-8P 189103-10-4P
(photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)
IT 119-67-5, 2-Formylbenzoic acid 126-00-1 636-46-4, 4-Hydroxyisophthalic acid 1076-97-7, 1,4-Cyclohexanedicarboxylic acid 7400-08-0 28136-81-4, 2-Hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 83573-55-1
(photoresist composition containing enol-ether compound, acidic compound, and acid-decomposable compound)

L51 ANSWER 49 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:733520 HCAPLUS Full-text
DOCUMENT NUMBER: 125:342919
ORIGINAL REFERENCE NO.: 125:63825a,63828a
TITLE: Positive-working photoresist composition containing acid-decomposable dissolution inhibitors and naphthoquinonediazide-type dissolution inhibitors
INVENTOR(S): Uenishi, Kazuya; Momota, Atsushi; Aoso, Toshiaki; Kokubo, Tadayoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

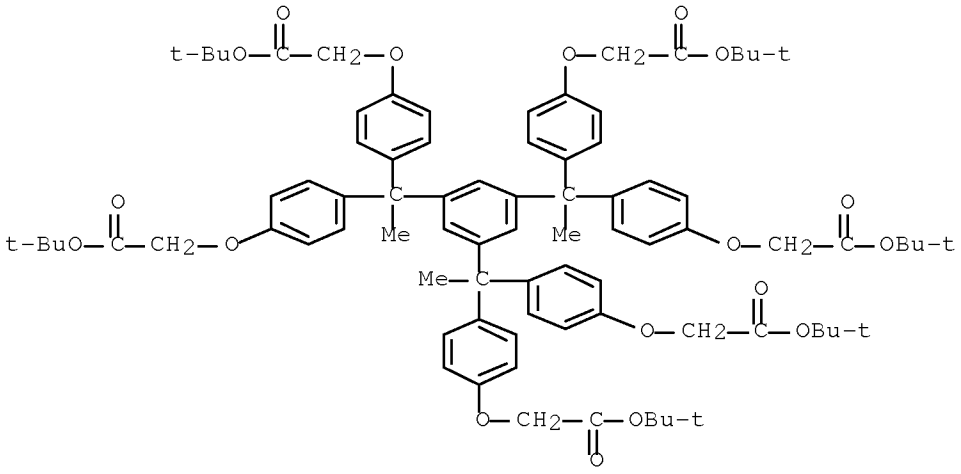
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08220749	A	19960830	JP 1995-29872 <--	19950217
PRIORITY APPLN. INFO.:			JP 1995-29872 <--	19950217

ED Entered STN: 13 Dec 1996

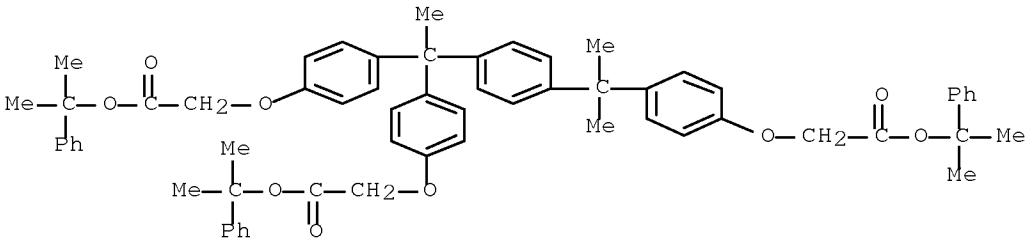
AB The composition contains (A) an alkali-soluble resin, (B) 1,2-naphthoquinonediazide-(5 and/or 4)-sulfonic acid esters, (C) a low-mol.-weight compound with mol. weight ≤3000 having acid-decomposable group selected from tert-alkyl ester group, tert-alkyl carbonate group, cumyl ester group, tetrahydropyranyl ether group, and (D) a photoacid generator. Contents of components B and C preferably satisfy the following relations: 5 weight% ≤ (B + C) ≤ 70 weight% and 30 weight% ≤ [100B/(B + C)] ≤ 95 weight%. The photoresist composition shows good dimensional reproducibility, wide developing latitude, heat resistance, and little dependence on film thickness. 1,3,5-Tris[4-(tert-butoxycarbonyloxy)-α,α- dimethylbenzyl]benzene was prepared and used as a acid-decomposable dissoln. inhibitor for the composition

IT 153698-65-8P 153698-69-2P
(pos.-working photoresist composition containing acid-decomposable dissoln. inhibitors and naphthoquinonediazide-type dissoln. inhibitors)

RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-022
ICS G03F007-004; G03F007-039
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos working photoresist dissoln inhibitor; naphthoquinonediazidesulfonate ester dissoln inhibitor photoresist; acid decomposable dissoln inhibitor photoresist
IT Phenolic resins, preparation
(novolak, pos.-working photoresist composition containing acid-decomposable dissoln. inhibitors and naphthoquinonediazide-type dissoln. inhibitors)
IT Resists
(photo-, pos.-working, pos.-working photoresist composition containing acid-decomposable dissoln. inhibitors and naphthoquinonediazide-type dissoln. inhibitors)
IT 27029-76-1P, m-Cresol-p-cresol-formaldehyde copolymer 100346-90-5P 183671-75-2P
(pos.-working photoresist composition containing acid-decomposable dissoln. inhibitors and naphthoquinonediazide-type dissoln. inhibitors)
IT 126776-83-8P 153698-58-9P 153698-63-6P 153698-65-8P 153698-68-1P 153698-69-2P 153698-70-5P 153840-05-2P 159293-87-5P 171484-63-2P 174175-82-7P 174588-47-7P 180258-33-7P
(pos.-working photoresist composition containing acid-decomposable dissoln. inhibitors and naphthoquinonediazide-type dissoln. inhibitors)
IT 110-87-2, 3,4-Dihydro-2H-pyran 3770-97-6, 1,2-Naphthoquinonediazide-5-sulfonyl chloride 4466-18-6 5292-43-3, tert-Butyl bromoacetate 24424-99-5, Di-tert-butyl dicarbonate 76937-83-2 106743-89-9 110726-28-8 111850-25-0 136355-24-3 148452-55-5 153698-47-6, Cumyl bromoacetate 170636-10-9
(pos.-working photoresist composition containing acid-decomposable dissoln. inhibitors and naphthoquinonediazide-type dissoln. inhibitors)

L51 ANSWER 50 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:731287 HCAPLUS Full-text
DOCUMENT NUMBER: 125:342917
ORIGINAL REFERENCE NO.: 125:63825a,63828a
TITLE: Positively working photosensitive resin composition containing acid-decomposable dissolution inhibitor
INVENTOR(S): Yamanaka, Tsukasa; Aoso, Toshiaki

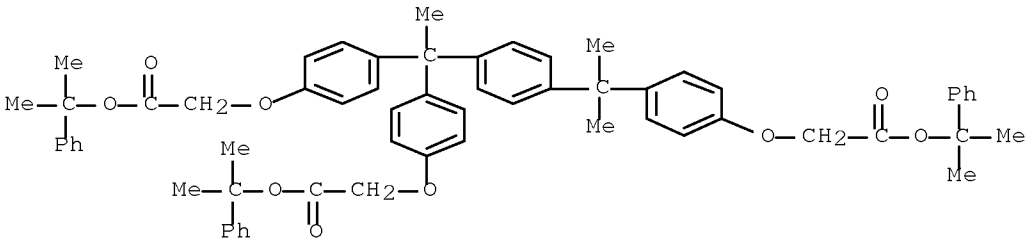
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08220762	A	19960830	JP 1995-25531 <--	19950214
PRIORITY APPLN. INFO.:			JP 1995-25531 <--	19950214

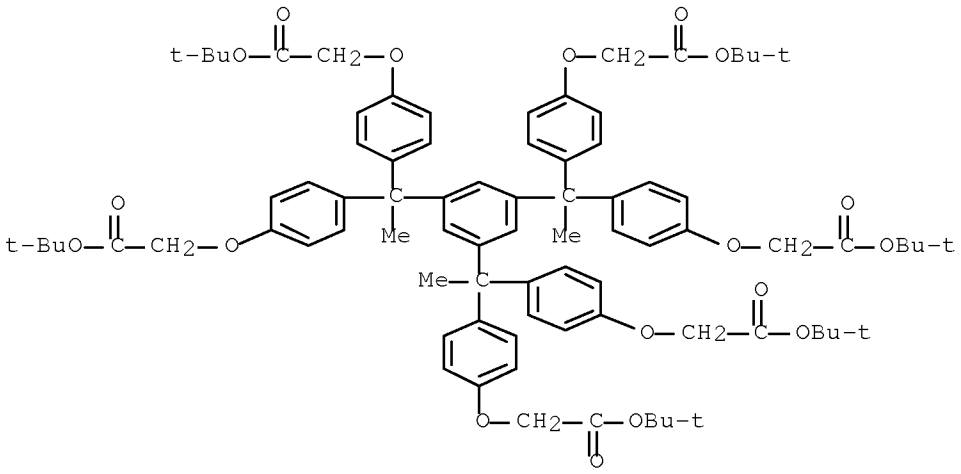
ED Entered STN: 12 Dec 1996

AB The composition comprises a resin, an acid-decomposable dissoln. inhibitor of mol. weight ≤3000 whose solubility is enhanced by an acid, an acid-generator, an organic base, and ≥5 weight% surfactant. The dissoln. inhibitor comprises (1) a compound having ≥2 acid-decomposable groups with the farthest distance ≥10 bonding atoms or (2) a compound having ≥3 acid-decomposable groups with the farthest distance ≥9 bonding atoms. The composition shows high resolution and stable pattern profile before baking.

IT 153698-69-2P
(acid-generator; pos. working photosensitive resin composition containing acid-decomposable dissoln. inhibitor)
RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



IT 153698-65-8P
(pos. working photosensitive resin composition containing acid-decomposable dissoln. inhibitor)
RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-039
ICS G03F007-00; G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
ST dissoln inhibitor photoresist compn; pos working photosensitive imaging compn
IT Resists
(photo-, pos. working photosensitive resin composition containing acid-decomposable dissoln. inhibitor)
IT 153698-69-2P
(acid-generator; pos. working photosensitive resin composition containing acid-decomposable dissoln. inhibitor)
IT 5292-43-3, tert-Butyl bromoacetate 76937-83-2, α,α,α'α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 110726-28-8 153698-47-6
(in preparation of acid-decomposable dissoln. inhibitor for photoresist)
IT 153698-65-8P
(pos. working photosensitive resin composition containing acid-decomposable dissoln. inhibitor)

L51 ANSWER 51 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:379720 HCAPLUS Full-text
DOCUMENT NUMBER: 125:45127
ORIGINAL REFERENCE NO.: 125:8487a,8490a
TITLE: Positive chemically amplified resist composition and method for producing compounds used therein
INVENTOR(S): Aoai, Toshiaki; Fujimori, Toru
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 78 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 709736	A1	19960501	EP 1995-116815	19951025

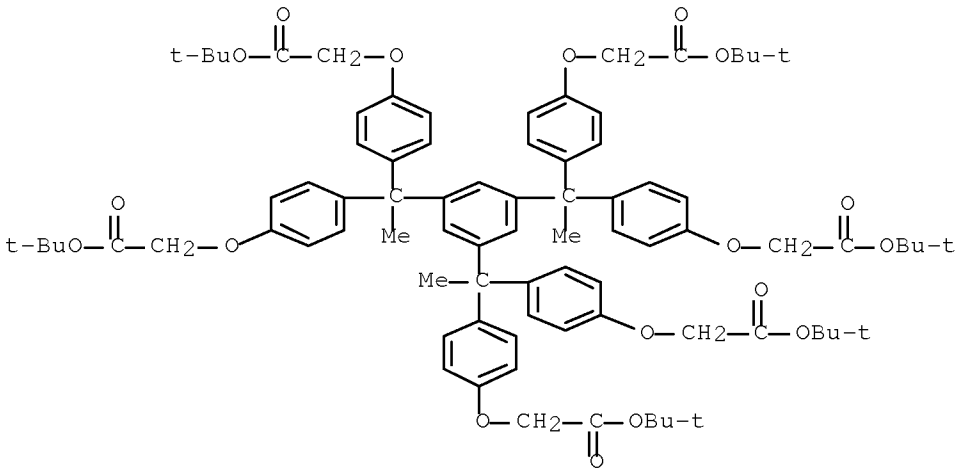
			<--	
EP 709736	B1	19990421		
R: BE, DE				
JP 08123031	A	19960517	JP 1994-262790	19941026
			<--	
JP 3340864	B2	20021105		
PRIORITY APPLN. INFO.:			JP 1994-262790 A	19941026
			<--	

OTHER SOURCE(S): MARPAT 125:45127
ED Entered STN: 02 Jul 1996

AB A pos. chemical amplified resist composition is disclosed, comprising (a) a compound which generates an acid upon irradiation with active light or radiant ray, (b) a resin insol. in water but soluble in an aqueous alkali solution, and (c) a low-mol-weight acid-decomposable dissoln. inhibitor having a mol. weight of 3000 or less and containing an acid-decomposable alkyl ester group represented by the formula -(CR1R2)nCO2CR3R4R5 (R1, R2 = H, alkyl, or aryl; R3, R4, R5 = H, alkyl, cycloalkyl, alkoxy, alkenyl, aralkyl, or aryl, provided that two of R3, R4, and R5 may be combined to form a ring; n = an integer of 1-10), which increases its solubility in an alkali developer by the action of an acid, and having a sodium content and a potassium content each of 30 ppb or less. Further disclosed are methods for producing the compds. (c).

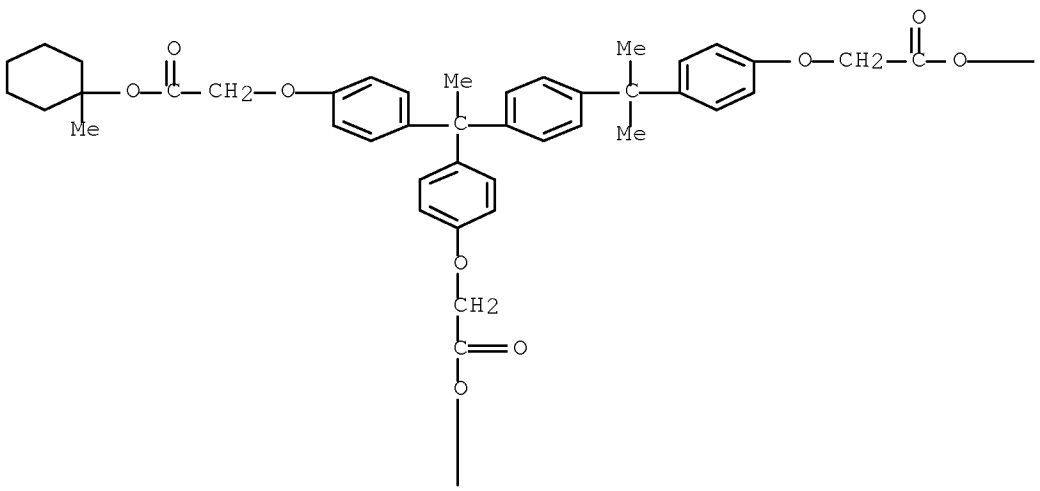
IT 153698-65-8P 177983-93-6P
(preparation and use as acid-decomposable dissoln. inhibitor for pos photoresist)

RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

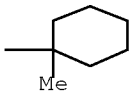


RN 177983-93-6 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-[(1-methylcyclohexyl)oxy]-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methylcyclohexyl) ester (9CI) (CA INDEX NAME)

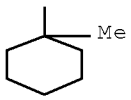
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM G03F007-004
ICS C08F008-02
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST pos chem amplified photoresist compn; acid decomposable dissoln inhibitor pos photoresist
IT Resists
(photo-, pos.-working, containing alkali-soluble resins, photosensitive acid generators, and acid-decomposable dissoln. inhibitors)
IT 66003-78-9 124737-97-9 142096-70-6 153698-46-5 153698-67-0 176109-33-4 177786-96-8 177786-97-9 177786-98-0
(photosensitive acid generator for pos. photoresists)
IT 142952-62-3P 153698-58-9P 153698-63-6P 153698-65-8P 159293-87-5P 177787-08-5P 177983-92-5P 177983-93-6P 177983-94-7P 177983-95-8P 177983-96-9P 177983-97-0P

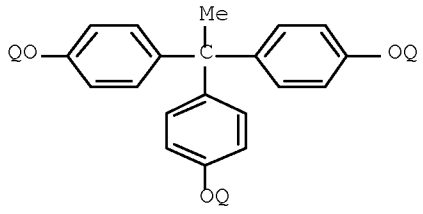
177983-99-2P 177984-01-9P 177984-02-0P 177984-03-1P
177984-04-2P 177984-05-3P 177984-06-4P 178066-92-7P
(preparation and use as acid-decomposable dissoln. inhibitor for pos photoresist)

IT 75-59-2, Tetramethylammonium hydroxide 100-85-6, Benzyltrimethylammonium hydroxide 123-41-1, Choline hydroxide 4466-18-6 5292-43-3, tert-Butyl bromoacetate 24979-70-2, Poly(4-hydroxystyrene) 24979-74-6, 4-Hydroxystyrene-styrene copolymer 29322-78-9, Poly(3-methyl-4-hydroxystyrene) 51866-62-7 76937-83-2, α,α, α',α',α'',α''-Hexakis(4-hydroxyphenyl)-1,3,5-triethylbenzene 110726-28-8 138646-88-5 148452-55-5, 1,3,3,5-Tetrakis(4-hydroxyphenyl)pentane
(reaction in preparing acid-decomposable dissoln. inhibitor for pos photoresist)

L51 ANSWER 52 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:212078 HCAPLUS Full-text
DOCUMENT NUMBER: 124:302590
ORIGINAL REFERENCE NO.: 124:55835a,55838a
TITLE: Positive-working photosensitive resin composition
INVENTOR(S): Banba, Toshio; Hirano, Takashi
PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08022118	A	19960123	JP 1994-158400 <--	19940711
JP 3176802	B2	20010618		
PRIORITY APPLN. INFO.:			JP 1994-158400 <--	19940711

OTHER SOURCE(S): MARPAT 124:302590
ED Entered STN: 13 Apr 1996
GI



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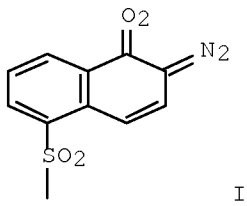
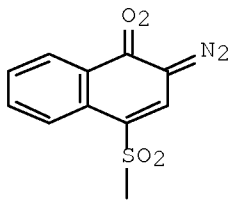


II



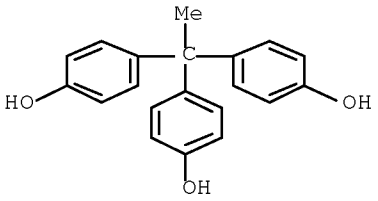
III

AB The composition comprises (A) polyoxazole resin precursor, (B) polyamic acid having ≥30% (of total diamine) H2NR1SiR3R4(OSiR3R4)nR2NH2 (R1-2 = divalent organic group; R3-4 = monovalent organic group; n = 1-10), (C) a photosensitive diazoquinone I (Q = H, II, III), at weight ratio B/A = (1-100)/100 and C/A = (1-100)/100. The composition shows good adhesivity with Si wafer and gives high residual film ratio on development.

IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(esterification with naphthozuinonediazidesulfonyl chloride)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-004
ICS C08K005-28; C08L079-04; C08L079-08; G03F007-022; G03F007-037

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photoresist polybezoxazole precursor; polyamic acid diazoquinone compd photoresist

IT Resists
(photo-, photosensitive resin composition containing polyoxazole resin precursor and polyamic acid and diazoquinone compound)

IT 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
(esterification with naphthozuinonediazidesulfonyl chloride)

L51 ANSWER 53 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:485800 HCAPLUS Full-text

DOCUMENT NUMBER: 122:303027

ORIGINAL REFERENCE NO.: 122:54937a,54940a

TITLE: Photosensitive resin composition containing photodecomposable sulfonimide compound

INVENTOR(S): Kawamura, Koichi; Kobayashi, Fumikazu; Yamanaka, Tsukasa

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07028245	A	19950131	JP 1993-169032 <--	19930708
JP 3078153	B2	20000821		

US 5698369 A 19971216 US 1995-488450 19950607
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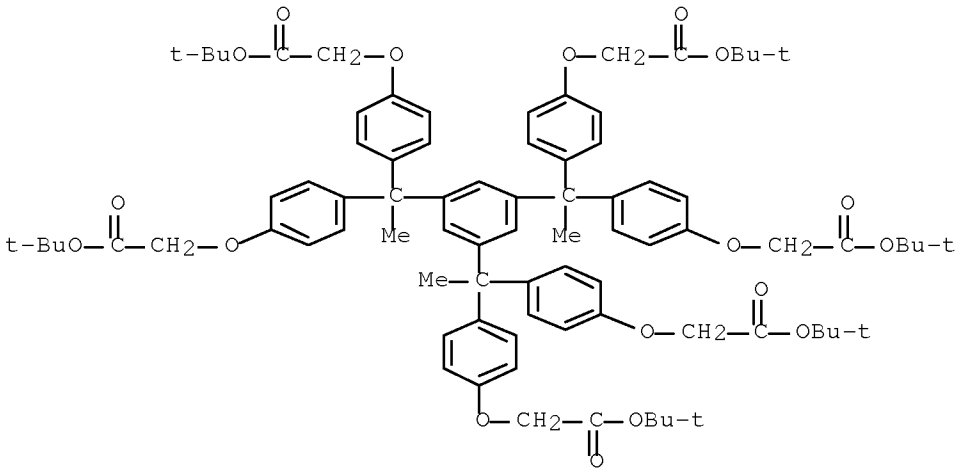
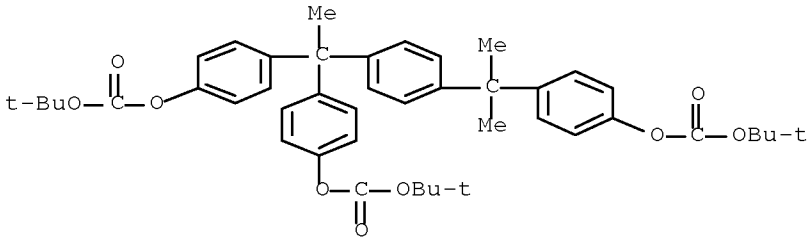
PRIORITY APPLN. INFO.: JP 1993-169032 A 19930708
<--
US 1994-271976 B1 19940708
<--

OTHER SOURCE(S): MARPAT 122:303027
ED Entered STN: 13 Apr 1995
AB The composition contains a sulfonimide compound R1SO2NR3SO2R2 [R1-3 = (substituted) aromatic group, (substituted) alkyl] and a polymer binder which is water unsol. and alkali-soluble or swellable, optionally containing a compound having ≥1 C-O-C or C-O-Si bond severed in presence of acids, a compound having ≥2 crosslinkable groups in presence of acids, a polymerizable ethylenic compound, or a color-changeable compound by acids or radicals. The composition showed high sensitivity and gave high-resolution resist images.
IT 153698-65-8
(dissoln.-preventing agent; photosensitive resin composition containing photodecomposable sulfonimide compound as photoacid or photoradical generator)
RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IT 151533-21-0
(photosensitive resin composition containing photodecomposable sulfonimide compound as photoacid or photoradical generator)
RN 151533-21-0 HCAPLUS
CN Carbonic acid, C,C'-[[1-[4-[1-[4-[[(1,1-dimethylethoxy)carbonyl]oxy]phenyl]-1-methylethyl]phenyl]ethylidene]di-4,1-phenylene] C,C'-bis(1,1-dimethylethyl) ester (CA INDEX NAME)



IC ICM G03F007-039
ICS G03F007-00; G03F007-004; G03F007-027; G03F007-028; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST photosensitive resin sulfonimide photoacid generator; imaging photoresist photodecomposable sulfonimide; pos photoresist sulfonimide photoradical generator
IT Resists
(photo-, photosensitive resin composition containing photodecomposable sulfonimide compound as photoacid or photoradical generator)
IT 153698-65-8
(dissoln.-preventing agent; photosensitive resin composition containing photodecomposable sulfonimide compound as photoacid or photoradical generator)
IT 4986-89-4, Pentaerythritol tetraacrylate 55918-70-2, m-Cresol-p-cresol copolymer 65697-21-4, Benzyl methacrylate-methacrylic acid copolymer 151533-21-0
(photosensitive resin composition containing photodecomposable sulfonimide compound as photoacid or photoradical generator)

L51 ANSWER 54 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:385953 HCAPLUS Full-text
DOCUMENT NUMBER: 122:147304
ORIGINAL REFERENCE NO.: 122:27079a,27082a
TITLE: Photodefinable polymers containing perfluorocyclobutane groups
INVENTOR(S): Babb, David A.; Richey, W. Frank; Clement, Katherine S.; Moyer, Eric S.; Sorenson, Marius W.
PATENT ASSIGNEE(S): Dow Chemical Co., USA
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9415258	A1	19940707	WO 1993-US11562 <--	19931201
W: CA, JP, KR RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5426164	A	19950620	US 1992-996452 <--	19921224
CA 2151151	A1	19940707	CA 1993-2151151 <--	19931201

EP 676062	A1	19951011	EP 1994-902456 <--		19931201
R: BE, DE, FR, GB, IT, NL					
JP 08505168	T	19960604	JP 1993-515164 <--		19931201
US 5489623	A	19960206	US 1995-428740 <--		19950425
PRIORITY APPLN. INFO.:			US 1992-996452 <--	A	19921224
			WO 1993-US11562 <--	W	19931201

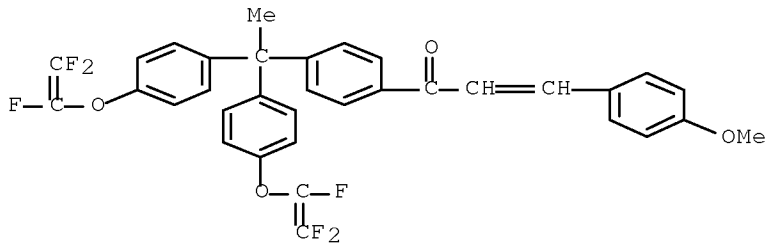
ED Entered STN: 03 Mar 1995

AB The title polymer has ≥1 photoactive site and >1 perfluorocyclobutane group. New monomers containing photoactive sites or photoactive precursors and ≥1 perfluorovinyl group are useful for making such polymers. Processes of making such polymers and the monomers from which they are made are disclosed. The polymers are useful in coatings, photoresists, and other photoactive applications.

IT 161250-61-9 161250-73-3, 1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-methoxyphenyl)-1,4-pentadiene-3-one 161251-73-6 161251-74-7 161251-78-1, 1,1-Bis(4-trifluoroethenyloxyphenyl)-1(4-(5-(2-furanyl)-2,4-pentadiene-1-onyl)phenyl)ethane
(monomer for photodefinable polymer)

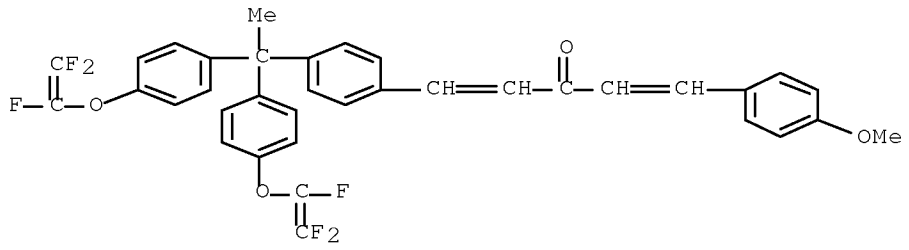
RN 161250-61-9 HCAPLUS

CN 2-Propen-1-one, 1-[4-[1,1-bis[4-[(trifluoroethenyl)oxy]phenyl]ethyl]phenyl]-3-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

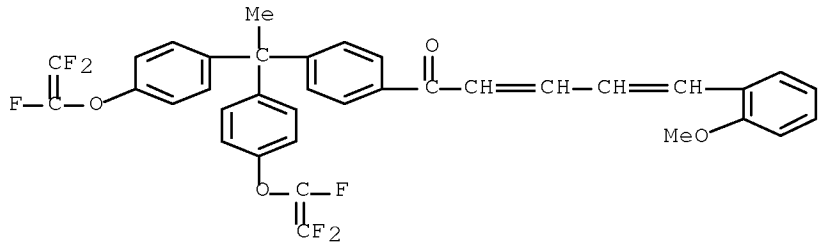


RN 161250-73-3 HCAPLUS

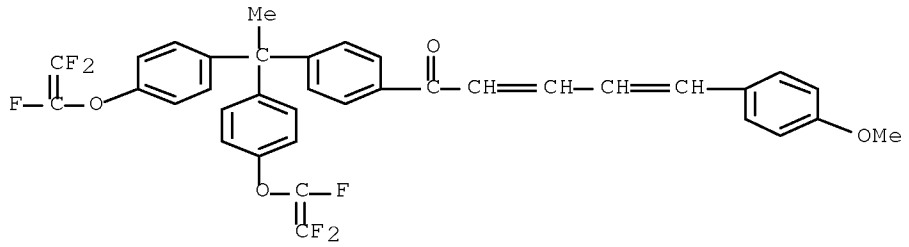
CN 1,4-Pentadien-3-one, 1-[4-[1,1-bis[4-[(trifluoroethenyl)oxy]phenyl]ethyl]phenyl]-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



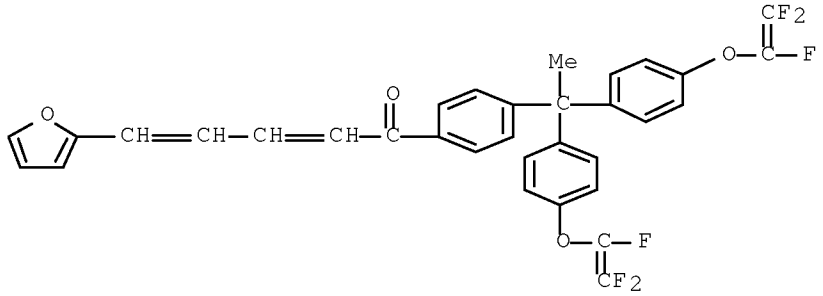
RN 161251-73-6 HCAPLUS
CN 2,4-Pentadien-1-one, 1-[4-[1,1-bis[4-[(trifluoroethenyl)oxy]phenyl]ethyl]phenyl]-5-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)



RN 161251-74-7 HCAPLUS
CN 2,4-Pentadien-1-one, 1-[4-[1,1-bis[4-[(trifluoroethenyl)oxy]phenyl]ethyl]phenyl]-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



RN 161251-78-1 HCAPLUS
CN 2,4-Pentadien-1-one, 1-[4-[1,1-bis[4-[(1,2,2-trifluoroethenyl)oxy]phenyl]ethyl]phenyl]-5-(2-furanyl)- (CA INDEX NAME)



IC ICM G03F007-004
ICS C07C043-17; C08F016-32
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
ST photodefinable polymer perfluorocyclobutane group photoresist
IT Resists
(photo-, photodefinable polymers containing perfluorocyclobutane groups)
IT 161249-96-3 161249-98-5 161249-99-6 161250-00-6, β-(4-Hydroxybenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-01-7, β-(4-Acetylbenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-02-8, β-(4-Acetyloxybenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-03-9, β-(4-Aminobenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-04-0, β-(4-Carboxybenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-05-1, β-(4-Isocyanatobenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-06-2, β-(4-Chlorocarboxybenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-07-3, β-(4-Carboxymethylbenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-08-4, β-(4-Carboxyethylbenzylidene)-4-(trifluoroethenyloxy)acetophenone 161250-09-5, 4-Hydroxy-β-(4-trifluoroethenyloxybenzylidene)acetophenone 161250-10-8, 4-Amino-β-(4-trifluoroethenyloxybenzylidene)acetophenone 161250-11-9, 4-Carboxy-β-(4-trifluoroethenyloxybenzylidene)acetophenone 161250-12-0, 4-Chlorocarboxy-β-(4-trifluoroethenyloxybenzylidene)acetophenone 161250-13-1, 4-Isocyanato-β-(4-trifluoroethenyloxybenzylidene)acetophenone 161250-14-2, 4-Carboxymethyl-β-(4-trifluoroethenyloxybenzylidene)acetophenone 161250-15-3 161250-16-4, 1-(4-Hydroxyphenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161250-17-5, 2-(4-Hydroxyphenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161250-18-6, 1-(4-Aminophenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161250-19-7, 2-(4-Aminophenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161250-20-0, 1-(4-Carboxyphenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161250-21-1, 2-(4-Carboxyphenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161250-22-2, 1-(4-Chlorocarboxyphenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161250-23-3, 2-(4-Chlorocarboxyphenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161250-24-4, 1-(4-Isocyanatophenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161250-25-5, 2-(4-Isocyanatophenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161250-26-6, 1-(4-Carboxymethylphenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161250-27-7 161250-28-8, 4-Hydroxy-4'-trifluoroethenyloxystibene 161250-29-9, 4-Aminophenyl-4'-trifluoroethenyloxystilbene 161250-30-2, 4-Carboxyphenyl-4'-trifluoroethenyloxystilbene 161250-31-3, 4-Isocyanato-4'-trifluoroethenyloxystilbene 161250-32-4, 4-Carboxymethylphenyl-4'-trifluoroethenyloxystilbene 161250-33-5, 5-Hydroxy-8-trifluoroethenyloxynaphthoquinone 161250-34-6, 1-(4-Hydroxyphenyl)-5-(4-trifluoroethenyloxyphenyl)-1,4-pentadien-3-one 161250-35-7, 1-(4-Aminophenyl)-5-(4-trifluoroethenyloxyphenyl)-1,4-pentadien-3-one 161250-36-8, 1-(4-Carboxyphenyl)-5-(4-trifluoroethenyloxyphenyl)-1,4-

pentadien-3-one 161250-37-9 161250-38-0,
1-(4-Isocyanatophenyl)-5-(4-trifluoroethenyloxyphenyl)-1,4-pentadien-3-one 161250-39-1, 5-Hydroxy-8-trifluoroethenyloxycoumarin 161250-40-4, 8-Hydroxy-5-trifluoroethenyloxycoumarin 161250-41-5, 5-Amino-8-trifluoroethenyloxycoumarin 161250-42-6, 8-Amino-5-trifluoroethenyloxycoumarin 161250-43-7, 5-Isocyanato-8-trifluoroethenyloxycoumarin 161250-44-8, 8-Isocyanato-5-trifluoroethenyloxycoumarin 161250-45-9, 2-(4-Hydroxybenzylidene)-6-(4-trifluoroethenyloxybenzylidene)cyclohexanone 161250-46-0, 2-(4-Hydroxybenzylidene)-6-(4-trifluoroethenyloxybenzylidene)-4-methylcyclohexanone 161250-47-1, 2-(4-Aminobenzylidene)-6-(4-trifluoroethenyloxybenzylidene)cyclohexanone 161250-48-2, 2-(4-Aminobenzylidene)-6-(4-trifluoroethenyloxybenzylidene)-4-methylcyclohexanone 161250-49-3, 2-(4-Carboxymethylbenzylidene)-6-(4-trifluoroethenyloxybenzylidene)cyclohexanone 161250-50-6, 2-(4-Carboxymethylbenzylidene)-6-(4-trifluoroethenyloxybenzylidene)-4-methylcyclohexanone 161250-51-7, 2-(4-Isocyanatobenzylidene)-5-(4-trifluoroethenyloxybenzylidene)cyclohexanone 161250-52-8, 2-(4-Isocyanatobenzylidene)-6-(4-trifluoroethenyloxybenzylidene)-4-methylcyclohexanone 161250-53-9 161250-54-0, 2-(4-Chlorocarboxybenzylidene)-6-(4-trifluoroethenyloxybenzylidene)-4-methylcyclohexanone 161250-55-1, 1-(4-Acroyloxyphenyl)-1,1-bis(4-trifluoroethenyloxyphenyl)ethane 161250-56-2, 1-(4-Methacroyloxyphenyl)-1,1-bis(4-trifluoroethenyloxyphenyl)ethane 161250-57-3, 1-(4-Acroylphenyl)-1,1-bis(4-trifluoroethenyloxyphenyl)ethane 161250-58-4, 1-(4-Methacroylphenyl)-1,1-bis(4-trifluoroethenyloxyphenyl)ethane 161250-59-5 161250-60-8 161250-61-9 161250-62-0,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)-β-(4-trifluoromethylbenzylidene)acetophenone 161250-63-1,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)-β-(4-carboxymethylbenzylidene)acetophenone 161250-64-2 161250-65-3,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)-β-(4-chlorobenzylidene)acetophenone 161250-66-4,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)-β-(4-fluorobenzylidene)acetophenone 161250-67-5,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)-β-(4-acetylbenzylidene)acetophenone 161250-68-6 161250-69-7,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)styrene 161250-70-0,
4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)-N-phenylmaleimide 161250-71-1, 1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-phenyl-1,4-pentadiene-3-one 161250-72-2,
1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-(dimethylamino)phenyl)-1,4-pentadiene-3-one 161250-73-3,
1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-methoxyphenyl)-1,4-pentadiene-3-one 161250-74-4,
1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-(carboxymethyl)phenyl)-1,4-pentadiene-3-one 161250-75-5,
1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-(carboxyethyl)phenyl)-1-4-pentadiene-3-one 161250-76-6,
1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-(trifluoromethyl)phenyl)-1,4-pentadiene-3-one 161250-77-7,
1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-nitrophenyl)1,4-pentadiene-3-one 161250-78-8,

1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-chlorophenyl)-1,4-pentadiene-3-one 161250-79-9, 1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-fluorophenyl)-1,4-pentadiene-3-one 161250-80-2, 1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-acetophenyl)-1,4-pentadiene-3-one 161250-81-3, 1-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl)-5-(4-cyanophenyl)-1,4-pentadiene-3-one 161250-82-4, 4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenylacetylene 161250-83-5, 4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenylbuta-1,3-diyne 161250-84-6, 4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenylhexa-1,3,5-triyne 161250-85-7, 4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenylocta-1,3,5,7-tetrayne 161250-86-8, 4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenyl-1,3,5,7,9-pentayne 161250-87-9, 6-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenoxy)naphthoquinone 161250-88-0, 6-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenoxy)coumarin 161250-89-1, 7-(4-(1,1-Bis(4-trifluoroethenyloxyphenyl)ethyl)phenoxy)coumarin 161250-90-4, 2-(4-(1,1-Bis(trifluoroethenyloxyphenyl)ethyl)benzylidene)cyclohexanone 161250-91-5, 2-(4-(4-(1,1-Bis(trifluoroethenyloxyphenyl)ethyl)phenoxy)benzylidene)cyclohexanone 161250-92-6, 1-Acroyloxy-2-(4-trifluoroethenyloxy)benzoyloxyethane 161250-93-7, 1-Methacroyloxy-2-(4-trifluoroethenyloxy)benzoyloxyethane 161250-94-8, N-(4-Trifluoroethenyloxyphenyl)acrylamide 161250-95-9, N-(4-Trifluoroethenyloxyphenyl)methacrylamide 161250-96-0, 4-Trifluoroethenyloxyphenylacrylate 161250-97-1, 4-Trifluoroethenyloxyphenylmethacrylate 161250-98-2, N-(4-Trifluoroethenyloxyphenyl)maleimide 161250-99-3, N-(4-Trifluoroethenyloxybenzoyl)maleimide 161251-00-9 161251-01-0 161251-02-1 161251-03-2 161251-04-3 161251-05-4 161251-06-5 161251-07-6 161251-08-7 161251-09-8 161251-10-1 161251-11-2 161251-12-3 161251-13-4 161251-14-5 161251-15-6 161251-16-7 161251-17-8 161251-18-9 161251-19-0 161251-20-3 161251-21-4 161251-22-5 161251-23-6 161251-24-7 161251-25-8 161251-26-9 161251-27-0 161251-28-1 161251-29-2 161251-30-5 161251-31-6 161251-32-7 161251-33-8 161251-34-9 161251-35-0 161251-36-1 161251-37-2 161251-38-3 161251-39-4 161251-40-7 161251-41-8 161251-42-9 161251-43-0 161251-44-1 161251-45-2 161251-46-3 161251-47-4 161251-48-5 161251-49-6 161251-50-9 161251-51-0 161251-52-1 161251-53-2 161251-54-3, 1-(4-Fluorophenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161251-55-4, 2-(4-Fluorophenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161251-56-5, 1-(4-Cyanophenyl)-2-(4-trifluoroethenyloxyphenyl)-1-propene 161251-57-6, 2-(4-Cyanophenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161251-58-7, 2-(4-Acetylphenyl)-1-(4-trifluoroethenyloxyphenyl)-1-propene 161251-59-8, 4-Methoxy-4'-trifluoroethenyloxystilbene 161251-60-1, 4-Dimethylaminophenyl-4'-trifluoroethenyloxystilbene 161251-61-2, 4-Carboxyethylphenyl-4'-trifluoroethenyloxystilbene 161251-62-3, 4-Nitro-4'-trifluoroethenyloxystilbene 161251-63-4, 4-Chloro-4'-trifluoroethenyloxystilbene 161251-64-5, 4-Fluoro-4'-trifluoroethenyloxystilbene 161251-65-6, 4-Cyano-4'-trifluoroethenyloxystilbene 161251-66-7, 4-Acetyl-4'-trifluoroethenyloxystilbene 161251-67-8, 4-Trifluoromethyl-4'-trifluoroethenyloxystilbene 161251-68-9 161251-69-0 161251-70-3 161251-71-4 161251-72-5 161251-73-6 161251-74-7 161251-75-8 161251-76-9 161251-77-0 161251-78-1,

1,1-Bis(4-trifluoroethenyloxyphenyl)-1(4-(5-(2-furanyl)-2,4-pentadiene-1-onyl)phenyl)ethane 161251-79-2, 3,5-Bis(trifluoroethenyloxy)-β-(benzylidene)acetophenone 161251-80-5, 3,5-Bis(trifluoroethenyloxy)-β-(4'-methoxybenzylidene)acetophenone 161251-81-6, 3,5-Bis(trifluoroethenyloxy)-β-(4'-dimethylaminobenzylidene)acetophenone 161251-82-7, 3,5-Bis(trifluoroethenyloxy)-β-(4'-cyanobenzylidene)acetophenone 161251-83-8, 3,5-Bis(trifluoroethenyloxy)-β-(4'-nitrobenzylidene)acetophenone 161251-84-9 161251-85-0 161251-86-1 161251-87-2 161251-88-3 161251-89-4 161251-90-7 161251-91-8 161251-92-9 161251-93-0 161251-94-1 161251-95-2 161251-96-3 161251-97-4, 2,7-Bis(3-phenyl-2-propene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161251-98-5 161251-99-6, 2,7-Bis(3-(2-methoxyphenyl)-2-propene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-00-2, 2,7-Bis(3-(4-dimethylaminophenyl)-2-propene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-01-3, 2,7-Bis(3-(4-cyanophenyl)-2-propene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-02-4, 2,7-Bis(3-(4-nitrophenyl)-2-propene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-03-5 161252-04-6 161252-05-7, 2-(5-(2-Methoxyphenyl)-2,4-pentadiene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-06-8 161252-07-9, 2,7-Bis(5-(4-cyanophenyl)-2,4-pentadiene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-08-0, 2,7-Bis(5-(4-nitrophenyl)-2,4-pentadiene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-09-1, 2,7-Bis(5-(2-dimethylaminophenyl)-2,4-pentadiene-1-onyl)-9,9-bis(4-trifluoroethenyloxyphenyl)fluorene 161252-10-4 161252-11-5 161252-12-6 161252-13-7 161252-14-8 161252-15-9 161252-16-0 161252-17-1 161252-19-3 161252-20-6 161252-21-7 161252-22-8
(monomer for photodefinable polymer)

IT 161252-23-9P 161252-25-1P 161252-26-2P 161252-28-4P 161252-29-5P 161252-30-8P 161252-31-9P
(photodefinable polymer for photoresist)

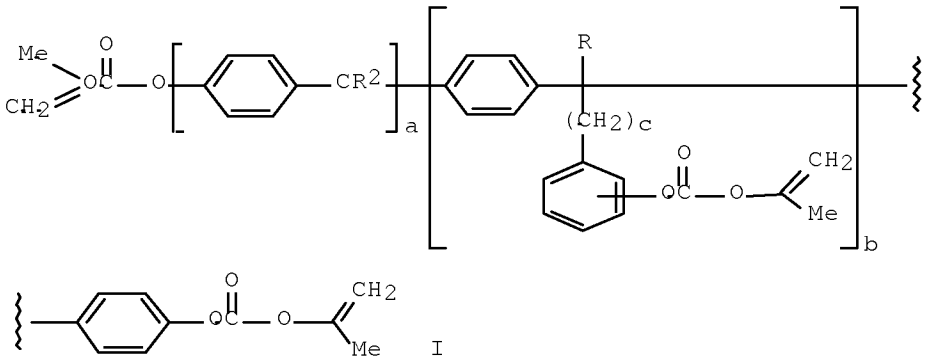
IT 134151-69-2P 134151-70-5P 134151-75-0P 134151-76-1P 161252-24-0P 161252-27-3P
(photodefinable polymer for photoresist)

L51 ANSWER 55 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:243798 HCAPLUS Full-text
DOCUMENT NUMBER: 122:92869
ORIGINAL REFERENCE NO.: 122:17362h,17363a
TITLE: Pattern-forming material for positive resist and aromatic isopropenyl carbonate
INVENTOR(S): Kuzuha, Noboru
PATENT ASSIGNEE(S): Aibaitsu Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06250391	A	19940909	JP 1993-37160 <--	19930226

PRIORITY APPLN. INFO.: JP 1993-37160 19930226
<--

ED Entered STN: 14 Dec 1994
GI



I

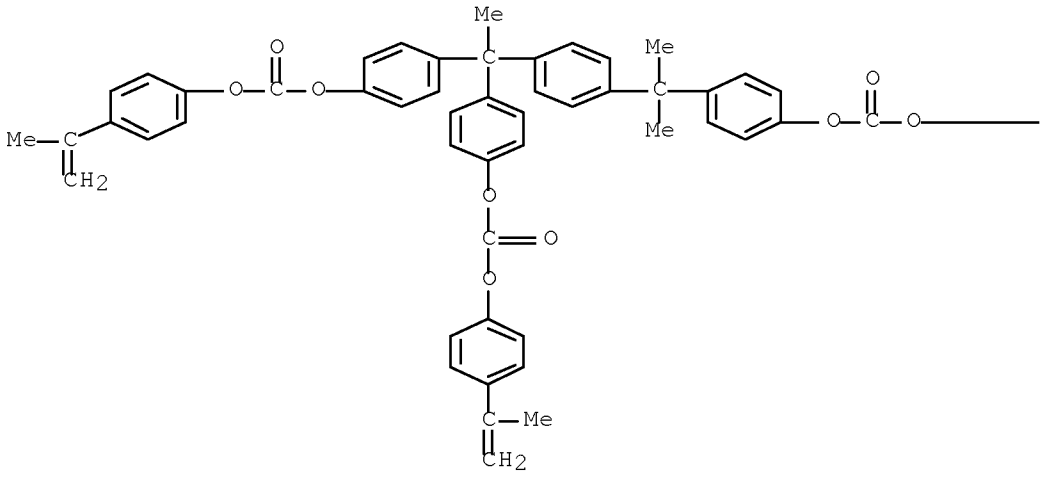
AB The compound is I (R = H, Me; a = 0-2; b = 0-2; c = 0-3). The material comprises an alkali-insol. compound having 1-5 isopropenyloxycarbonyl groups (mol. weight 150-1000) 100, an alkali-soluble polymer (mol. weight 2000-200,000) 50-1000, and a photo- or radiation-induced acid-generator 1-100 parts. The material comprises 100 parts of the alkali-insol. polymer having side chains containing isopropenyloxycarbonyl groups and 1-30 parts of the acid-generator. A resist from this material gives high-resolution pos. patterns.

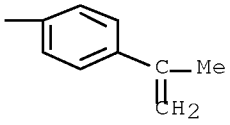
IT 160558-78-1P
(resists for pos. pattern)

RN 160558-78-1 HCAPLUS

CN Carbonic acid, [1-[4-[1-methyl-1-[4-[[[4-(1-methylethenyl)phenoxy]carbonyl]oxy]phenyl]ethyl]phenyl]ethylidene]di-4,1-phenylene bis[4-(1-methylethenyl)phenyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A





IC ICM G03F007-039
ICS C07C069-96; C08F018-24; G03F007-004; G03F007-028; H01L021-027
ICA C08F299-02
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25, 38, 76
ST isopropenyloxycarbonyl polymer photoresist; radiation resist isopropenyloxycarbonyl polymer
IT Resists
(photo-, isopropenyloxycarbonate compound-containing resist for pos. pattern)
IT 2886-36-4P 160558-78-1P
(resists for pos. pattern)

L51 ANSWER 56 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:204700 HCAPLUS Full-text
DOCUMENT NUMBER: 120:204700
ORIGINAL REFERENCE NO.: 120:36019a,36022a
TITLE: Positive-type light-sensitive composition
INVENTOR(S): Yamanaka, Tsukasa; Aoai, Toshiaki; Uenichi, Kazuya; Kondo, Shunichi; Kokubo, Tadayoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 81 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

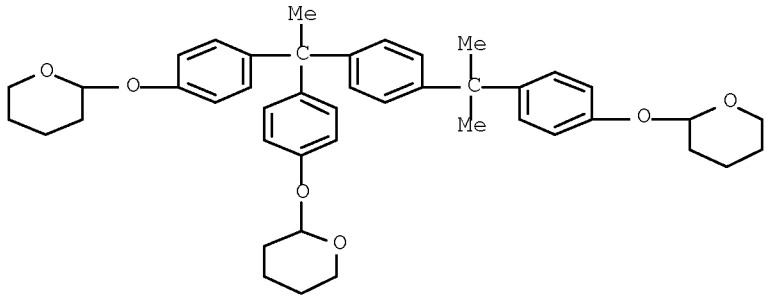
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 541112	A1	19930512	EP 1992-119043 <--		19921106
EP 541112	B1	20010905			
R: BE, DE, FR, GB					
JP 06051519	A	19940225	JP 1992-299093 <--		19921013
PRIORITY APPLN. INFO.:			JP 1991-319600 <--	A	19911108
			JP 1992-47705 <--	A	19920205
			JP 1992-47782	A	19920205

<--
JP 1992-166685 A 19920603
<--
JP 1992-299093 A 19921013
<--
OTHER SOURCE(S): MARPAT 120:204700
ED Entered STN: 16 Apr 1994

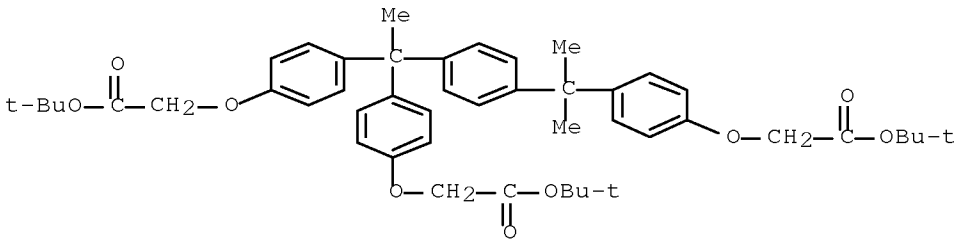
AB A pos.-type light-sensitive composition useful in manufacture of a lithog. plate or a semiconductor device and having less layer shrinkage by baking after exposing, less layer decrease in developing, a good profile, and a high resolution comprises (a) a resin which is insol. in water and soluble in an alkaline aqueous solution, (b) a compound which generates an acid by irradiation with active rays or radial rays, and (c) an acid-decomposable dissoln. inhibitor, having a mol. weight of not more than 3000 and having groups decomposable by the action of the generated acid to increase the solubility of said inhibitor in an alkaline developing solution, wherein said inhibitor (c) is at least one compound selected from the group consisting of (i) compds. having two of said acid decomposable groups which are separated by 10 or more bonded atoms excluding the atoms constituting the acid decomposable groups and (ii) compds. having at least three of said acid decomposable groups and two of said groups which are at the farthest positions are separated by 9 or more bonded atoms excluding the atoms constituting the acid decomposable groups.

IT 153698-53-4 153698-54-5 153698-64-7
153698-65-8
(pos. photoresist compns. containing alkali-soluble resins, photosensitive acid generators and, for lithog. plate and semiconductor device manufacture)

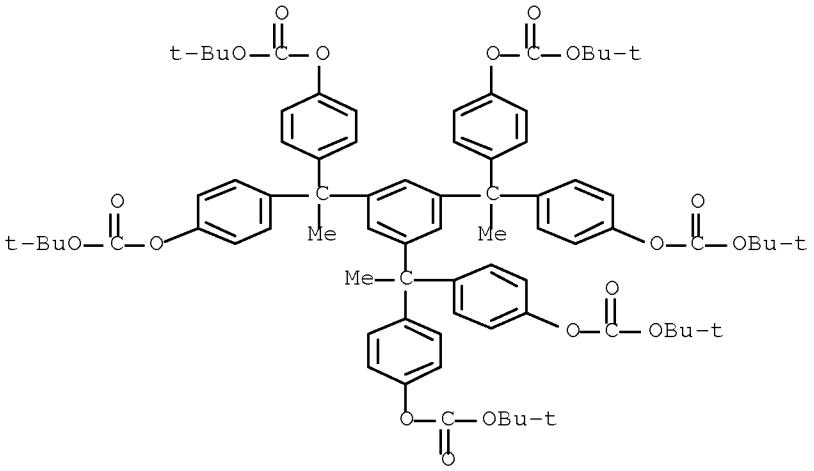
RN 153698-53-4 HCAPLUS
CN 2H-Pyran, 2,2'-[[1-[4-[1-methyl-1-[4-[(tetrahydro-2H-pyran-2-yl)oxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis[tetrahydro- (CA INDEX NAME)



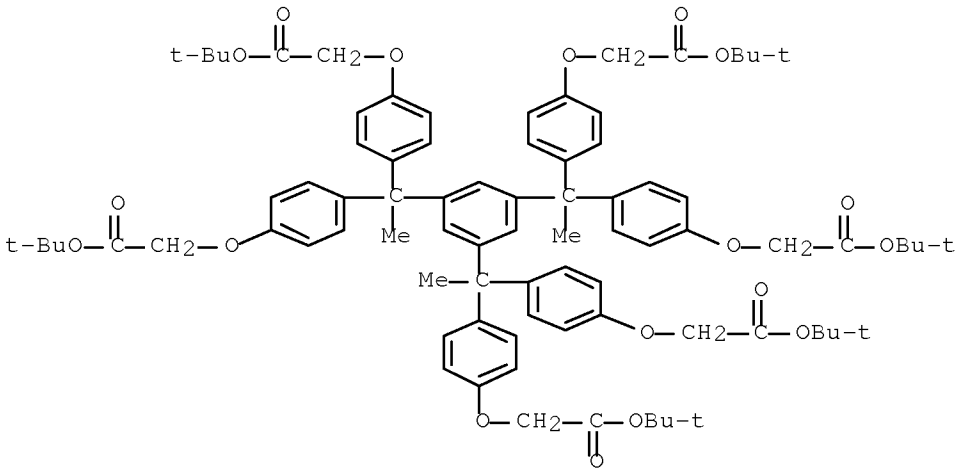
RN 153698-54-5 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-[4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]-1-methylethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, 1,1'-bis(1,1-dimethylethyl) ester (CA INDEX NAME)



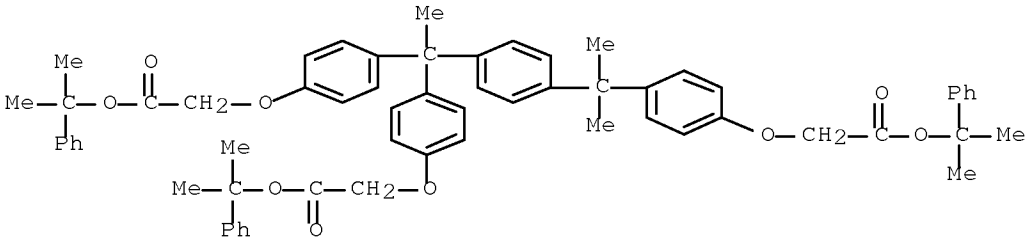
RN 153698-64-7 HCAPLUS
CN Carbonic acid, C,C',C'',C''',C'''',C'''''-[1,3,5-benzenetriyltris(ethylidenedi-4,1-phenylene)] C,C',C'',C''',C'''',C'''''-hexakis(1,1-dimethylethyl) ester (CA INDEX NAME)



RN 153698-65-8 HCAPLUS
CN Acetic acid, 2,2',2'',2''',2'''',2'''''-[1,3,5-benzenetriyltris[ethylidenebis(4,1-phenyleneoxy)]]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IT 153698-69-2P
(preparation and use of, as acid-decomposable dissoln. inhibitor for pos. photoresist compns.)
RN 153698-69-2 HCAPLUS
CN Acetic acid, 2,2'-[[1-[4-[1-methyl-1-[4-[2-(1-methyl-1-phenylethoxy)-2-oxoethoxy]phenyl]ethyl]phenyl]ethylidene]bis(4,1-phenyleneoxy)]bis-, bis(1-methyl-1-phenylethyl) ester (9CI) (CA INDEX NAME)



IC ICM G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Lithographic plates
Semiconductor devices
(manufacture of, pos. photoresist compns. containing photosensitive acid generators, alkali-soluble resins, and acid-decomposable dissoln. inhibitors for)
IT Phenolic resins, uses
(novolak, pos. photoresist compns. containing photosensitive acid generators, acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)
IT Resists
(photo-, pos., containing photosensitive acid generators, alkali-soluble resins, and acid-decomposable dissoln. inhibitors)
IT 57900-42-2 59626-75-4 62613-15-4 66003-78-9 124737-97-9 142096-70-6 153698-46-5 153698-66-9 153698-67-0
(pos. photoresist composition containing alkali-soluble resins,

acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)

IT 152238-74-9 153698-48-7 153698-49-8 153698-50-1 153698-51-2 153698-52-3 153698-53-4 153698-54-5 153698-55-6 153698-56-7 153698-57-8 153698-58-9 153698-59-0 153698-60-3 153698-61-4 153698-62-5 153698-63-6 153698-64-7 153698-65-8 153840-05-2
(pos. photoresist compns. containing alkali-soluble resins, photosensitive acid generators and, for lithog. plate and semiconductor device manufacture)

IT 24979-70-2, Poly(p-hydroxystyrene) 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 112504-03-7 123236-78-2
(pos. photoresist compns. containing photosensitive acid generators, acid-decomposable dissoln. inhibitors and, for lithog. plate and semiconductor device manufacture)

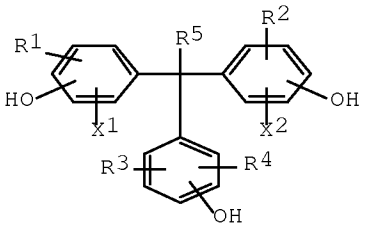
IT 153698-58-9P 153698-68-1P 153698-69-2P 153698-70-5P
(preparation and use of, as acid-decomposable dissoln. inhibitor for pos. photoresist compns.)

IT 110-87-2, 3,4-Dihydro-2H-pyran 865-47-4 4466-18-6 5292-43-3, tert-Butylbromoacetate 24424-99-5, Di-tert-butyldicarbonate 76937-83-2 110726-28-8 153698-47-6
(reaction of, in preparing acid-decomposable dissoln. inhibitor for pos. photoresist compns.)

L51 ANSWER 57 OF 57 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:505896 HCAPLUS Full-text
DOCUMENT NUMBER: 119:105896
ORIGINAL REFERENCE NO.: 119:18859a,18862a
TITLE: Positively-working photoresist using phenolic resin and quinonediazide
INVENTOR(S): Kawada, Masaji; Kashiwagi, Mikifumi; Koito, Kazuko
PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04301850	A	19921026	JP 1991-91603 <--	19910329
JP 2817441	B2	19981030		

PRIORITY APPLN. INFO.: JP 1991-91603 <-- 19910329
OTHER SOURCE(S): MARPAT 119:105896
ED Entered STN: 04 Sep 1993
GI



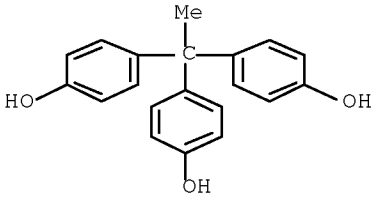
I

AB The title composition contains an alkali-soluble phenol resin and a photosensitive phenolic compound I (R1-4, X1-2 = H, halo, OH, C1-4 alkyl, substituted alkyl, C2-5 alkenyl, substituted alkenyl, C6-15 aryl, substituted aryl, C1-6 alkoxy, C1-5 acyl; R5 = H, C1-4 alkyl, C2-5 alkenyl, C6-15 aryl) and/or I (X1-2 = OH; R1-4 = H, halo, OH, C1-4 alkyl, substituted alkyl, C2-5 alkenyl, substituted alkenyl, C6-15 aryl, substituted aryl, C1-6 alkoxy, C1-5 acyl; R3-4 = H, halo, C1-4 alkyl, substituted alkyl, C2-5 alkenyl, substituted alkenyl, C6-15 aryl, substituted aryl, C1-6 alkoxy, C1-5 acyl; R5 = H, C1-4 alkyl, C2-5 alkenyl, substituted alkenyl, C6-15 aryl) whose OH are quinonediazidosulfonate-esterified and mixed-esterified with OSO2R6 and/or OCOR7 [R6-7 = (substituted) alkyl, (substituted) aryl]. The resist shows improved dimensional stability.

IT 27955-94-8
(reaction of, with quinonediazide and cap compds., for photoresist)

RN 27955-94-8 HCAPLUS

CN Phenol, 4,4',4''-ethylidynetris- (CA INDEX NAME)



IC ICM G03F007-022
ICS H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 25

ST photoresist alkali sol phenolic resin; quinonediazide photosensitive compn photoresist; cap compd mixed esterification photoresist

IT Phenolic resins, uses
(photoresist from, with dimensional stability, for semiconductor device)

IT Resists
(photo-, alkali-soluble phenolic resin and mixed-esterified quinonediazide compound for)

IT 27029-76-1P, m-Cresol-p-cresol-formalin copolymer 148879-64-5P 148879-65-6P 148879-92-9P 148879-93-0P 148879-94-1P

148880-88-0P 148880-89-1P 148880-90-4P 148880-91-5P
148880-92-6P 148880-93-7P 148880-94-8P 148880-95-9P
(preparation of, photoresist from, with dimensional stability, for semiconductor device)

IT 20584-13-8
(reaction of, with phenolic compound, for photoresist)

IT 75-36-5, Acetyl chloride 98-59-9, p-Toluenesulfonyl chloride
98-68-0, p-Methoxybenzenesulfonyl chloride 98-88-4, Benzoyl chloride
124-63-0, Methanesulfonyl chloride 814-68-6, Acryloyl chloride
4521-61-3, 3,4,5-Trimethoxybenzoyl chloride
(reaction of, with phenolic resin substituted with quinonediazide, for photoresist)

IT 603-44-1 27955-94-8 148019-42-5 149228-29-5
149228-30-8 149228-31-9 149228-32-0
(reaction of, with quinonediazide and cap compds., for photoresist)

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                 SEL RN


     FILE 'REGISTRY' ENTERED AT 12:45:13 ON 18 NOV 2008
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                 125748-07-4/BI OR 156281-11-7/BI OR 1927-95-3/BI OR
                 211427-64-4/BI OR 24424-99-5/BI OR 27955-94-8/BI OR
                 29654-55-5/BI OR 5001-18-3/BI OR 5292-43-3/BI OR 623-05-2/B
                 I OR 65338-98-9/BI OR 683227-72-7/BI OR 683227-73-8/BI OR
                 683227-74-9/BI OR 683227-75-0/BI OR 683227-76-1/BI OR
                 75-07-0/BI OR 99181-50-7/BI)
L3             4 SEA ABB=ON  PLU=ON  L2 AND PENTA?
L4             1 SEA ABB=ON  PLU=ON  L2 AND C28 H24 O8/MF
L5               STR  125748-07-4
L6            50 SEA SSS SAM L5
L7               STR L5
L8               STR
L9            50 SEA SSS SAM L7 AND L8
L10              STR L8
L11           50 SEA SSS SAM L7 AND L10
L12              STR L7
L13           50 SEA SSS SAM L12
L14        33354 SEA SSS FUL L12
L15            4 SEA ABB=ON  PLU=ON  L14 AND L2
                 SAV L14 LEE208/A
L16              STR L12
L17           35 SEA SUB=L14 SSS SAM L16
L18              STR L16
L19           17 SEA SUB=L14 SSS SAM L18
L20          648 SEA SUB=L14 SSS FUL L16
                 SAV L20 LEE208A/A
L21         1351 SEA ABB=ON  PLU=ON  C20 H18 O3/MF
L22            1 SEA ABB=ON  PLU=ON  L21 AND L2
                 E C20H18/MF
L23          671 SEA ABB=ON  PLU=ON  C20H18/MF
L24          201 SEA ABB=ON  PLU=ON  L23 AND 3/NR
L25           92 SEA ABB=ON  PLU=ON  L24 AND 3 46.150/RID
L26            1 SEA ABB=ON  PLU=ON  L25 AND ETHYLIDYNETRIS?
L27            2 SEA ABB=ON  PLU=ON  L22 OR L26

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L30          964 SEA ABB=ON  PLU=ON  L28 OR L29
L31            1 SEA ABB=ON  PLU=ON  L30 AND L1
L32          742 SEA ABB=ON  PLU=ON  L30 AND PREP/RL
L33          511 SEA ABB=ON  PLU=ON  L32 AND RACT/RL
L34          193 SEA ABB=ON  PLU=ON  L33 AND ?RESIST?
L35          142 SEA ABB=ON  PLU=ON  L34 AND PHOTOG?/SC,SX
L36           44 SEA ABB=ON  PLU=ON  L33 AND ?RESIST?(3A)MATERIAL?
L37           28 SEA ABB=ON  PLU=ON  L36 AND (1840-2002)/PRY,AY,PY
L38           22 SEA ABB=ON  PLU=ON  L36 AND (PHOTO? OR LIGHT?)
L39           14 SEA ABB=ON  PLU=ON  L38 AND L37
L40          116 SEA ABB=ON  PLU=ON  L32 AND (PHOTORESIST? OR PHOTO RESIST?
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                OR LIGHTRESIST? OR LIGHT RESIST?)
L41          111 SEA ABB=ON  PLU=ON  L40 AND PHOTOG?/SC,SX
L42           10 SEA ABB=ON  PLU=ON  L41 AND L36
L43            1 SEA ABB=ON  PLU=ON  L42 AND L1
L44           83 SEA ABB=ON  PLU=ON  L41 AND RACT/RL
L45           14 SEA ABB=ON  PLU=ON  L44 AND  (SEMICONDUCT? OR SEMI
                CONDUCT?)
                E  PHOTORESISTS/CT
L46        48430 SEA ABB=ON  PLU=ON  PHOTORESISTS+PFT,NT/CT
L47           77 SEA ABB=ON  PLU=ON  L44 AND L46
L48           77 SEA ABB=ON  PLU=ON  L45 OR L47
L49           57 SEA ABB=ON  PLU=ON  L48 AND (1840-2002)/PRY,AY,PY
L50            7 SEA ABB=ON  PLU=ON  L49 AND ?RESIST?(3A)MATERIAL?
L51           57 SEA ABB=ON  PLU=ON  L49 OR L50
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